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ABSTRACT

This monograph is part of a series on institutional support for student assessment. This report, which covers the second stage of the study, analyzes the results of a national survey of postsecondary education institutions that examined how institutions approach student assessment, their patterns of organizational and administrative support, and the uses and impacts of these efforts, focusing on undergraduate education. The survey instrument was based on a literature review and conceptual framework developed during the first stage. The survey population was all public and private postsecondary institutions that offer undergraduate programs at the associate or baccalaureate level. Analysis of the data suggest that student assessment is becoming a common practice in the academic management of U.S. postsecondary education, but it is not yet institutionalized or deeply embedded in institutional support patterns, policies, and practices. The researchers also conclude that the conceptual framework used appears useful, and that the survey instrument provides a checklist for institutions to examine their assessment approach. Appendixes include the survey instrument, the "Inventory of Institutional Support for Student Assessment"; correspondence related to the Inventory; institutional response rates by state; factor analysis results; and related reports, publications, and presentations. (Contains approximately 155 references.) (CH)

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Institutional Support for Student Assessment: Methodology and Results of a National Survey

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1. Overview of the Study

1.1 Purpose, Rationale, and Nature of the Study

Over the past decade assessment and improvement of student performance has been the focus of much discussion and many efforts both within and external to colleges and universities. During that time there has been a progressive increase in the number of postsecondary institutions engaged in some form of student assessment (El-Khawas, 1990, 1995). A considerable amount of faculty and administrative time and effort has been invested in promoting, supporting and implementing student assessment. To date there has been little systematic examination of the institutional responses to external demands, the institutional approaches to student assessment, and the organizational and administrative patterns that are formulated to promote and implement student assessment. Even less available is evidence regarding the institutional use and impact of student assessment (Banta, Lund, Black, & Oblander, 1996; Ewell, 1988b, 1997; Gray & Banta, 1997). Postsecondary institutions throughout the nation continue to search for appropriate and effective strategies for student assessment but have little credible evidence to guide their efforts.

NCPI Research Project 5.2 on "Institutional Support for Enhancing Student Assessment and Performance" addresses this gap by examining how postsecondary institutions respond to external pressures for and promote the effective use of student assessment practices that impact student learning and institutional performance. For the purposes of this research, student assessment refers to those activities focused on measuring dimensions of student performance other than traditional end-of-course grading.

Building on a review of the literature and a conceptual framework developed during the first stage of our research on institutional support for student assessment, this study reports on the second stage of our research: the design, implementation and analysis of a national survey of institutional approaches to student assessment, the patterns of organizational and administrative support for student assessment, and the institutional uses and impacts of student assessment information. The nature and results of each of these activities are addressed in the following sections of this report.

1.2 Prior Research Literature

1.2.1 Focusing the Literature

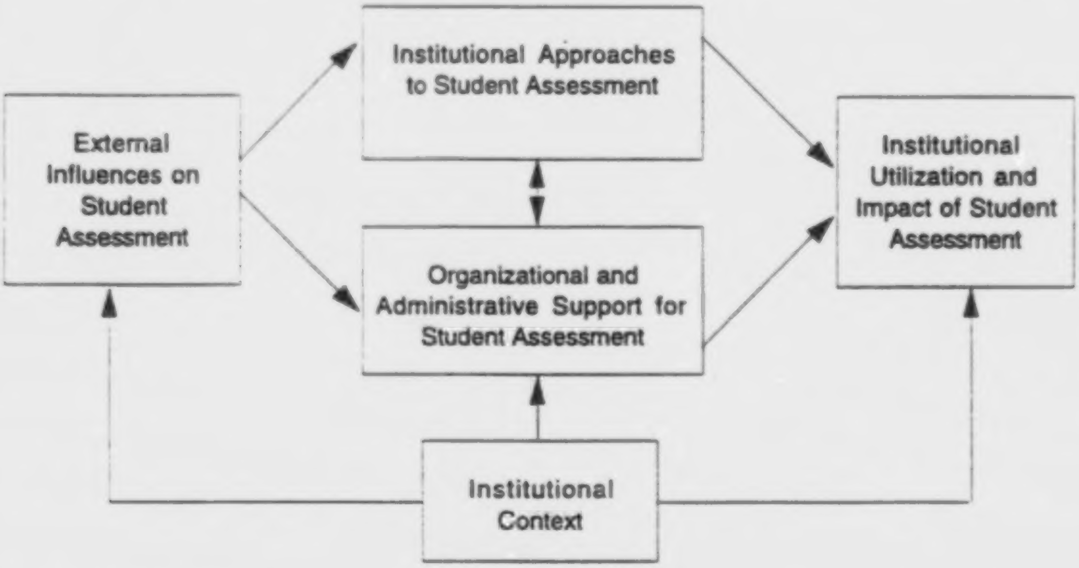
An extensive literature review examined what is currently known about the organizational and administrative context for student assessment in postsecondary institutions (Peterson, Einarson, Trice, & Nichols, 1997). This review focused on documents published between 1985 and 1996 and included literature from the following data bases: Education Resources Information Center (ERIC) system, Dissertation Abstracts International (DAI), H. W. Wilson Files (which includes the Business Periodicals Index, the Humanities Index, and the Social Sciences Index), ABI Inform, Psycinfo, and the Social Sciences Citation Index.

A two-phase literature search was conducted. In the initial phase, search terms related to different sectors of postsecondary education (higher education, postsecondary education, two-year colleges, and college) were cross-referenced with six search terms related to student assessment (student assessment, student outcomes, learning assessment, learning outcomes, outcomes assessment, and outcomes of education). This stage of the search yielded a total of 3,475 citations related to student assessment within postsecondary education institutions.

In the second search phase, the search criteria were restricted to include only those documents that addressed institutional-level issues in student assessment. Results from the initial search phase were cross-referenced with 57 search terms reflecting an array of potential external and institutional dimensions. This search produced 567 citations. This subset of documents was then evaluated and further narrowed based upon the following criteria: direct relevance to the research focus (document dealt specifically with institutional-level issues of student assessment in higher education), publication credibility (document was published in a professional journal, monograph, book, or report), and/or substantive content (document was empirically or conceptually grounded). A total of 291 documents which met these criteria were included in the literature review for this study.

The framework shown in Figure 1 was developed to organize the review of the literature on institutional support for student assessment.

Figure 1.1 Literature Review Framework



Institutional Approaches to Student Assessment
External Influences on Student Assessment
Institutional Utilization and Impact of Student Assessment
Organizational and Administrative Support for Student Assessment
Institutional Context

The framework consists of five environments: external influences on student assessment, institutional approach to student assessment, organizational and administrative support for student assessment, institutional utilization and impact of student assessment, and institutional context. Using this framework as a guide, the content of each of these documents was abstracted and analyzed. Before summarizing the results of the literature review within each environment of this framework, some observations about the nature of the available literature on this topic are offered.

1.2.2 Nature of Student Assessment Literature

All abstracted documents were classified according to the type of publication they represented and the nature of the document. Table 1.1 displays the types of publications abstracted. The majority of documents appeared as journal articles, monograph and book chapters, and unpublished reports. Comparatively few documents were in the form of books and monographs.

Table 1.1. Type of publications abstracted

Unpublished Reports	70
Monograph and Book Chapters	65
Journal Articles	64
Conference Proceedings	16
Books	10
Dissertations	10
Monographs	10

The nature of each document was characterized using the following categories: descriptive (described what assessment approaches or support practices states, institutions, etc., had adopted), evaluative (provided a review or critique of an assessment approach or support practice), prescriptive (advocated/prescribed the use of an assessment approach or support practice), conceptual (provided a conceptual model or applied theory to the analysis of an assessment approach or support practice), and empirical (reported findings regarding assessment approaches or support practices based on systematic observation, data collection, and descriptive and/or relational analysis). These descriptors were not mutually exclusive, thus documents could appear within more than one category. The nature of the abstracted documents, as Table 1.2 reveals, is indicative of the recent and emerging character of the literature on student assessment. The literature on student assessment at the institutional level is primarily descriptive or prescriptive in nature. Many of the documents reviewed consisted of descriptions of student assessment practices at single institutions or prescriptive guidelines for how institutions should support student assessment efforts. Little empirically-based literature and even less evaluative, conceptual or theoretical writing has been produced on this topic.

Table 1.2. Nature of Abstracted Documents

Descriptive	146
Evaluative	38
Prescriptive	87
Conceptual	27
Empirical	58

Several limitations of the empirical literature must be noted. The empirical literature was divided about equally between those based on survey and those on case study research designs. Survey research has primarily focused on describing the measures and approaches to student assessment adopted by institutions. The sampling designs of many surveys have been limited in terms of the type of postsecondary institutions included or geographical scope of the survey. Few studies collected information on organizational and administrative support practices or student assessment uses and impacts, and even fewer examined relationships among external and internal dimensions of assessment support. Most of the multi-case study reports reviewed were conducted as dissertation research and many of the single case studies lacked methodological rigor. Although some case study research offered a more detailed examination of the dynamics of institutional approaches to, and support for student assessment, this comprehensiveness was countered by the limited scope of organizational and administrative dimensions considered and the limited generalizability of these findings.

The literature on student assessment is very much an emerging arena of study. As is evident from the results of the first and second phases of the literature search, a relatively small proportion of the documents addressed student assessment in relation to institutional-level concerns or topics. Few of the documents that have taken an institutional perspective have considered the nature of external influences on institutions' student assessment efforts, provided systematic evidence on organizational and administrative support patterns, or presented little more than anecdotal information on the institutional uses and impacts of assessment. In particular, there has been a paucity of research examining the relationships among these environments.

Findings from the extant literature regarding each of the five environments of the literature review framework (Figure 1.1) are provided in the following sections of this report. Each section summarizes the literature under the specific domains identified within each of these environments. We also examine proposed relationships among the various environments and the nature of the evidence regarding these propositions.

1.2.3 Studies of External Influences on Student Assessment

The literature identified five domains of the external environment that have been discussed as potential influences upon institutions' student assessment approaches, support practices, and uses and impacts: national efforts, state-level initiatives, regional and professional accreditation associations, the private sector, and professional higher education associations.

According to many scholars, activities at the national level provided the initial impetus for student assessment in postsecondary education (Banta & Moffett, 1987; Ewell, 1991; Hutchings & Marchese, 1990; Marchese, 1987; Sims, 1992). These activities include the publication of reports critical of the quality of higher education (Bennett, 1984; National Institute of Education, 1984), development of the National Education Goals (Education Commission of the States [ECS], 1991; Nettles, 1995), revisions to the Department of Education's Criteria for Recognition of Accrediting Agencies (Sims, 1992), and linking the provision of federal funding for financial aid eligibility to institutions' student assessment efforts (Banta, 1991; Cook, 1989). As a result of these latter two actions, all six regional accreditation agencies now require institutions to conduct student assessment (Cole, Nettles & Sharp, 1997). The adoption of the National Education Goals brought governors and state higher education leaders into the discussion of national standards and assessment measures for student achievement (Lenth, 1993; 1996; Nettles, 1995). The impact of these federal policy actions suggests that the national domain has indirectly influenced institutions' decisions to engage in assessment efforts. There is limited evidence of a direct relationship between national activities and institutions' assessment efforts. While some institutions have reported that federal funds provided significant support for their initial assessment efforts (Amarin, Schilling, & Schilling, 1993; Banta, 1991; Katz, 1993), data from nationally-representative surveys reveal that national activities have been a minor influence on institutions' decisions to establish (Johnson, Prus, Andersen, & El-Khawas, 1991) or to increase (El-Khawas, 1995) their student assessment activity.

In contrast to the weak and largely indirect impact of national initiatives, scholars have portrayed state-level actions as having a strong direct influence on institutions' student assessment efforts (Aper, Cuver, & Hinkle, 1990; Ewell, 1993; Hutchings & Marchese, 1990). Since the mid-1980s an increasing number of states have enacted student assessment initiatives (National Center for Higher Education Management Systems [NCHEMS], 1996). Many institutions have identified state mandates among the reasons cited for initiating (Johnson et al., 1991) and increasing (El-Khawas, 1995) their student assessment programs and have used student assessment information for reports to state agencies (El-Khawas, 1990). But scholars debate whether state mandates have promoted institutional support for and use of student assessment or have mainly evoked a compliance response on the part of institutions (Aper et al., 1990; Ewell, 1993; El-Khawas, 1995).

States use a variety of governance structures for higher education and vary widely in the form that student assessment initiatives take (e.g., policy, statute, both policy and statute) (Cole, Nettles & Sharp, 1997). Scholars have proposed specific dimensions of state-level student assessment initiatives that may influence the extent to which institutions support and utilize student assessment. Those include whether: 1) the primary purpose of the initiative is institutional improvement rather than external accountability (Aper & Hinkle, 1991; Ewell, 1991), 2) the initiative is linked to other state policy levers (Ewell, 1991) or is consistent with other external policies or reporting requirements (Jones & Ewell, 1993; Lincoln, 1990; McGuinness, 1994), 3) decisions about broad guidelines for assessment and strategic and operational decisions are centralized at the state level or decentralized to institutions (Ewell, 1984; Jones & Ewell, 1993), 4) the student performance indicators and assessment instruments are selected by institutions or prescribed by states (Ewell, 1987a, 1994; Jacobi, Astin, & Ayala, 1987; Ory, 1991; Terenzini, 1989), 5) the institutions are required to report how they have utilized student assessment information or just provide evidence of assessment plans or the existence of student performance information (Ewell, 1987b, 1990), and 6) the states provide fiscal resources to support or reward institutions' assessment activities (Banta, 1988; Banta & Moffett, 1987; Ewell, 1987b).

Changes in patterns of state-level student assessment initiatives have been documented over the past decade and include: greater emphasis on external accountability as the primary purpose (Ewell, 1991, 1997; Ewell & Jones, 1993; McGuinness, 1994; NCHEMS, 1996), increasing linkages with other state policies or regulatory systems (NCHEMS, 1996), more frequent use of common performance indicators (Ewell, 1994; Gaither, 1995; Ruppert, 1994, 1995) and common assessment instruments (NCHEMS, 1996; Steele & Lutz, 1995), and the introduction of performance-based funding approaches (Cole et al., 1997; Ewell, 1991, 1997). Overall, this shift toward increasing regulation at the state level may be expected to increase the number of institutions reporting student assessment activity but decrease the level of institutional support for student assessment and the likelihood that assessment information is used for institutional improvement.

There has been little systematic examination of the relationship between these changing patterns of state-level activity or the specific dimensions of state-level initiatives and institutions' student assessment efforts, support practices or uses. Case study research has produced conflicting findings regarding the effectiveness of centralized or decentralized state approaches in promoting institutional support for student assessment (Aper & Hinkle, 1991; Banta, 1988; Ewell & Boyer, 1988). Survey research has only asked institutions to self-report whether or not a state requirement for student assessment exists and the extent to which state requirements have influenced institutional decisions to begin or increase assessment activity (El-Khawas, 1990; Johnson et al., 1991; Muffo, 1992).

Although the role of accreditation associations has received less attention in the assessment literature than that of state agents, accreditation agencies, particularly regional institutional accrediting associations, appear to be an important domain of external influence on institutions' student assessment efforts (Aper et al., 1990; Banta, 1993; Ewell, 1993). As noted previously, all regional accreditation associations now require member institutions to undertake and document some form of student assessment activity (Cole et al., 1997). However, regional association guidelines vary in terms of the emphasis placed on student assessment compared to other required indicators of institutional performance, the nature of institutional reporting requirements regarding student assessment efforts, and the range of student assessment-related services and activities provided to member institutions (Cole et al., 1997).

Increasing numbers of institutions have reported conducting student assessment as a part of regional (El-Khawas, 1989, 1990, 1991, 1992, 1995) and professional (El-Khawas, 1991, 1992, 1995) accreditation self-studies. Further, accreditation requirements was the external domain most frequently cited by institutions as a reason for initiating (Johnson et al., 1991; Muffo, 1992) and increasing (El-Khawas, 1995) their student assessment efforts. Beyond these general findings, evidence regarding the influence of accreditation policies and practices on institutional support for, and use of student assessment is scant and inconclusive (Cowart, 1990; Gentemann & Rogers, 1987; Gill, 1993; Kalthoff & Lenning, 1991).

Within the private sector, the business community and private foundations have been suggested as emergent sources of influence on institutions' support for student assessment. Scholars point to the inclusion of employment-related measures (e.g., student success in finding employment, employer satisfaction with graduates) in institutions' student assessment approaches as proof of the growing impact of business community interests (Banta, 1991; Ewell, 1991). Data from surveys of assessment approaches conducted across different types of institutions suggest research universities are least likely and community colleges are most likely to collect information on this aspect of student performance (Cowart, 1990; Johnson et al., 1991; Ory & Parker, 1989). Discussions of private foundation influences have centered on their provision of funding for institutions' student assessment projects. Descriptions of student assessment projects reveal that a variety of institutions have received some financial support from private foundations for these efforts (Banta, 1991; Banta & Moffett, 1987; Obler, Slark, & Umbdenstock, 1993). No systematic research was found regarding the extent or nature of business community or private foundation influences on institutions' support for or use of student assessment.

Finally, in an effort to encourage and support institutions' student assessment activities, professional higher education associations have undertaken a variety of efforts that include the sponsorship of national conferences, publication of resource materials, and provision of consulting services (Banta, 1991; Mentkowski, 1991). No research was located regarding the extent to which institutions have used these services and the relationship of professional association efforts to institutions' assessment approaches, support practices and uses of student assessment.

Summary of External Influences. External domains must be included in any examination of influences on institutional support for student assessment. From the perspective of institutional informants, accreditation requirements have been most influential in motivating institutions to engage in student assessment, followed by state-level initiatives and, to a much lesser extent, national efforts (El-Khawas, 1995; Johnson et al., 1991). Scholars have advanced propositions regarding the influence of specific dimensions of these external domains to institutional support for student assessment. However, the corresponding research is scant, more often general than specific in its approach, and descriptive rather than relational.

1.2.4 Studies of Institutional Approaches to Student Assessment

Institutional approach to student assessment refers to the content and technical aspects of student assessment. This domain represents the specific aspects of student performance and functioning an institution chooses to assess as a part of its student assessment efforts and the means by which it measures those aspects. The literature identified four dimensions as the basis for comparing institutional approaches to student assessment: content or type of student assessment measures, level of aggregation at which assessment occurs, timing of assessment measures, and type of student assessment methods employed.

Institutions select which aspects of students' characteristics and experiences to examine in their assessment approach. Astin (1991) differentiates between comparatively fixed or variable student characteristics. Fixed characteristics include ascriptive circumstances such as socio-demographic status. Several taxonomies have been developed as means of classifying the variable dimensions of postsecondary students' performance or functioning (cf. Astin, 1991; Bowen, 1977; Lenning, Lee, Micek, & Service, 1977; Alexander & Stark, 1986; Ewell, 1984, 1987c). Although these classification schemes vary in terms of the specific terminology used and categories of variables proposed, all distinguish among aspects of students' cognitive, affective or behavioral functioning. The cognitive dimension includes basic skills (reading, writing and computational skills), higher-order cognitive processes (critical thinking and problem solving), subject-matter knowledge, and general education competencies. The affective dimension includes students' values, attitudes, aspirations, self-ratings, and satisfaction. The behavioral dimension includes observable aspects of students' functioning such as course completion, degree attainment, hours spent studying, field of employment, and job performance.

In addition to considering dimensions of students' performance or functioning, institutions may also choose to examine aspects of students' experiences within the institution as a part of their assessment approach (Astin, 1991; Banta et al., 1996; Erwin, 1991a; Lenning, 1991). Micek and Arney (1974) proposed five categories of institutional characteristics, processes and practices that may influence student learning and development: the instructional environment (e.g., course-taking patterns, teaching methods), the social environment (e.g., student-faculty contact, student participation in co-curricular activities, residence arrangements), the fiscal environment (e.g., type or amount of financial aid received, participation in work study), the organizational environment (e.g., faculty-student ratio, admissions policies, advising policies), and the physical environment (e.g., classroom space, availability of study areas, library resources). Student assessment approaches that examine multiple dimensions of student functioning and that include aspects of students' institutional experiences are expected to contribute more to institutional decision making and the improvement of student performance than assessment approaches that focus narrowly on student attributes and performance (Astin, 1991; Ewell, 1988b; Hutchings, 1990; Johnson, McCormick, Prus, & Rogers, 1993).

The content of student assessment approaches has been examined in a number of studies. A review of survey research reveals most assessment approaches have emphasized measures of cognitive aspects of student functioning. Of these, basic skills were most often assessed, followed by knowledge in the major, general education, and higher-order cognitive processes (Cowart, 1990; Johnson et al., 1991; Ory & Parker, 1989). In comparison, behavioral variables were measured less often (Cowart, 1990; Gill, 1993; Patton, Dasher-Alston, Ratteray, & Kait, 1996) and affective variables were least likely to be measured (Cowart, 1990; Gill, 1993; Johnson et al., 1991; Patton et al., 1996; Steele & Lutz, 1995; Steele, Malone, & Lutz, 1997). Few institutions collected information on students' experiences within or perceptions of the institutional environment as a part of their student assessment approaches (Cowart, 1990; Gill, 1993; Ory & Parker, 1989; Patton et al., 1996; Steele et al., 1997). There is some evidence of differences in the content of student assessment approaches by institutional type (Cowart, 1990; Steele et al., 1997; Steele & Lutz, 1995). Compared to four-year institutions, two-year institutions were more likely to assess basic skills and employment-related measures (Hexter & Lippincott, 1990) and less likely to assess non-cognitive measures (Kalthoff & Lenning, 1991).

A second dimension of student assessment approaches is the level of aggregation or unit of analysis toward which the approach is oriented (Ewell, 1988b, 1991c; Terenzini, 1989). Institutions may use student assessment to examine the performance of individual students or student subgroups, academic courses, programs or departments, schools or colleges within the institution, or the institution as a whole (Alexander & Stark, 1986; Astin, 1991; Ewell, 1984, 1987c). In general, some level of disaggregation in student assessment is deemed important to avoid masking differences in performance among subgroups of students (Astin, 1991; Ewell, 1988b). Scholars have offered arguments for directing assessment approaches at various units of analyses (Halpern, 1987; Hlebowitsh, 1995; Loaker & Mentkowski, 1993; Ratcliff, 1995; Seybert, 1994). The relative effectiveness of a decision regarding unit of analysis is expected to depend on its congruence with an institution's purpose for conducting assessment (Alexander & Stark, 1986). No research was located that examined institutional choices regarding this student assessment approach dimension or the relationship of this dimension to assessment support or uses.

In terms of timing of student assessment measures, institutions may collect student assessment data as students enter the institution, at various points during students' enrollment, as or after students terminate their formal involvement with the institution, or at some combination of these points in time (Astin, 1991; Terenzini, 1989). Each approach to the timing of measures has strengths and limitations (Astin, 1991; Terenzini, 1989). Despite their associated psychometric, statistical and methodological complexities (Hanson, 1988; Jacobi et al., 1987; Terenzini, 1989), assessment approaches that incorporate multiple points of data collection are thought to have the potential to make a greater impact on student and institutional performance than those that collect data at only one point in time (Astin, 1991; Halpern, 1987; Jacobi et al., 1987; Kells, 1992).

A synthesis of findings from research on student assessment practices undertaken across various types of postsecondary institutions shows data collection was most likely to occur at only one point in time, most often as students entered institutions and to a lesser extent at the time of students' exit (Cowart, 1990; Gill, 1993; Hexter & Lippincott, 1990; Kalthoff & Lenning, 1991; Patton et al., 1996). There was little evidence of institutions assessing students at various points during their enrollment or measuring changes in students' performance over the duration of their enrollment (Cowart, 1990; Gill, 1993; Hexter & Lippincott, 1990; Kalthoff & Lenning, 1991; Ory & Parker, 1989; Patton et al., 1996; Steele et al., 1997; von Destinon, Ganz, & Engs, 1993).

As a final dimension of student assessment approach, institutions select specific methods to collect student assessment data. A basic choice concerns whether externally-developed or institutionally-developed methods or instruments are used (Johnson et al., 1993; Lenning, 1991; Ory, 1991; Winston & Miller, 1994). Externally-developed methods most often take the form of comprehensive objective examinations or inventories administered in a written or computerized format. These have mainly been developed to measure various aspects of students' cognitive functioning. To a lesser but increasing extent, externally-developed instruments that measure students' affective and behavioral functioning are also available. Institutionally-developed methods include numerous options. The literature discusses the following general categories: comprehensive tests or examinations (Ewell, 1987c; Fong, 1988; Johnson et al., 1993), performance-based measures such as projects, demonstrations, internships, simulations, or portfolios (Banta et al., 1996; Fong, 1988; Johnson et al., 1993; Lenning, 1988), surveys or interviews (Ewell, 1987c; Johnson et al., 1993; Lenning, 1988), external examiners (Fong, 1987; Johnson et al., 1993; Payne, Vowell, & Black, 1991), or archival records (Ewell, 1987c; Johnson et al., 1993; Lenning, 1988).

There are advantages and disadvantages associated with the use of externally-developed and institutionally-developed assessment methods (cf. Ewell, 1984, 1987a; Jacobi et al., 1987; Ory, 1991; Terenzini, 1989). The effectiveness of any particular method may depend on the purpose of student assessment. If assessment is being undertaken to meet external accountability requirements, externally-developed methods may be most appropriate while institutionally-developed methods may be a better choice if improving students' or institutional performance is the primary purpose of assessment (Ewell, 1987a; Jacobi et al., 1987; Ory, 1991). Overall, scholars advocate the use of multiple assessment methods to capitalize on the strengths and combat the deficiencies of any one method (Ewell, 1984, 1988b; Halpern, 1987; Jacobi et al., 1987; Lenning, 1991; Ratcliff, Jones et al., 1997; Sims, 1992; Terenzini, 1989) and to permit triangulation of assessment results (Jacobi et al., 1987; Lenning, 1988).

Extant research provides conflicting evidence of the student assessment methods used by postsecondary institutions. In two studies, institutions used externally-developed instruments more often than institutionally-developed methods (Johnson et al., 1991; Kalthoff & Lenning, 1991) but the converse was found in two other surveys (Ervin, 1988; Steele & Lutz, 1995). Data from *Campus Trends* surveys show an increasing number of institutions were developing their own assessment methods, including the use of student portfolios (El-Khawas, 1992, 1995). However, in research conducted by Gill (1993) and Johnson and colleagues (1991), portfolios were among the least commonly-used student assessment methods. Two studies found institutions made greatest use of externally-developed and institutionally-developed objective tests (Smith, Bradley, & Draper, 1993; von Destinon et al., 1993); according to several other studies, institutionally-developed methods have most often been comprised of archival data such as enrollment figures, course completion and course grades, and retention, graduate, and employment rates (Cowart, 1990; Gibson, 1992; Gill, 1993; Patton et al., 1996; Steele & Lutz, 1995). Little research has examined differences in student assessment methods among types of institutions (Steele et al., 1997).

Summary of Institutional Approaches. Scholars have advocated the use of comprehensive student assessment approaches in which institutions use a variety of assessment methods to collect information on numerous aspects of students' performance and experiences at multiple points in time. It appears most institutions have adopted relatively limited assessment approaches. Measures of students' cognitive functioning have been emphasized while measures of affective and behavioral functioning are less common. Data have most often been collected at one point in time. Evidence suggests that institutions are making greater use of institutionally-developed assessment methods but this use can range from the mining of archival data to the development of student portfolio methods. The comprehensiveness of student assessment approaches undertaken by an institution is expected to be positively associated with the institutional uses and impacts of student assessment. No research was found regarding the relationship of institutional approach dimensions to institutional support for or uses of assessment.

1.2.5 Organizational and Administrative Support for Student Assessment

Five domains of organizational and administrative support for student assessment have been discussed in the literature: institutional support strategy, leadership and governance patterns for student assessment, assessment management policies and practices, student assessment culture and climate, and evaluation of the student assessment process.

Institutional support strategy refers to an institution's choices about the overall purpose, structure, and functions of its student assessment efforts. These strategic choices represent an institution's efforts to establish a fit between its external and internal environments (Peterson, Cameron, Mets, Jones, & Ettington, 1986). Accordingly, two general categories of institutional support strategy dimensions have been discussed: those reflective of external forces for student assessment (external assessment support strategy), and those reflective of internal forces for student assessment (internal assessment support strategy).

Scholars have distinguished two dimensions of institutions' external assessment support strategies that may influence assessment approaches, support practices, and uses. These are: whether or not an institution must respond to external mandates for student assessment (Aper et al., 1990; Ewell, 1991, 1993), and the timing of an institution's assessment activities relative to the establishment of external assessment mandates (Ewell, 1994; Ewell & Boyer, 1988; Neal, 1995).

Data from multi-institutional survey research support a positive relationship between the existence of external requirements for student assessment and the likelihood that institutions will be engaged in some form of student assessment activity (El-Khawas, 1990, 1995; Hexter & Lippincott, 1990; Johnson et al., 1991; Scott, 1991). Descriptions of student assessment efforts undertaken at a variety of institutions suggest that institutions whose student assessment efforts were initiated prior to, or concurrently with external assessment mandates have more comprehensive student assessment approaches and stronger internal support than institutions whose assessment efforts followed the imposition of external mandates (Banta, 1985, 1988; Hutchings & Marchese, 1990; Krueger & Heisserer, 1987). No systematic comparative research or relational analyses were found regarding these external strategy dimensions.

Three dimensions of internal assessment support strategy have been proposed as important influences on institutions' student assessment approaches, support practices, and uses: whether an institution's assessment support strategy primarily addresses external or internal purposes (Braskamp, 1991; Ewell, 1987a; Hutchings & Marchese, 1990), the planning processes used for student assessment (Ewell, 1987c, 1988a), and the linkage between student assessment efforts and an institution's academic mission (Loacker & Mentkowski, 1993; Winston & Miller, 1994).

The dimension of purpose of student assessment efforts spans the categories of external and internal support strategy. While assessment strategy must address both internal and external purposes (Aper et al., 1990), scholars have proposed that assessment strategies that emphasize internal purposes such as improving students' and institutional performance will encourage more comprehensive student assessment approaches, garner stronger internal support, and result in greater utilization of assessment information than strategies that emphasize external purposes such as fulfilling external accountability requirements (Ewell, 1987a; Hutchings & Marchese, 1990; Sell, 1989). Characteristics of effective student assessment planning processes have been suggested including developing a formal student assessment plan (Braskamp, 1991), using incremental planning steps such as conducting an inventory of existing student assessment activity (Banta et al., 1996; Payne, Vowell, & Black, 1991; Terenzini, 1989; Thomas, 1991), and mounting pilot projects (Ewell, 1984, 1987b, 1988a; Terenzini, 1989). Scholars have asserted the importance of relating an institution's student assessment efforts to its academic mission (Loacker & Mentkowski, 1993; Winston & Miller, 1994). Greater internal support for student assessment is expected if the mission prioritizes teaching and learning (Banta, 1993; Hutchings & Marchese, 1990) and student assessment (Duvall, 1994) as institutional activities and clearly specifies intended educational outcomes (Braskamp, 1991).

Empirical support for these propositions is in short supply. Descriptive evidence from survey (Johnson et al., 1991; Muffo, 1992) and case study research (Hyman, Beeler, & Benedict, 1994; Suchanic, 1989/1990) suggests assessment support strategies which give equal or greater weight to internal assessment purposes than to external assessment purposes are associated with more comprehensive student assessment approaches. There is limited evidence that a growing number of institutions have developed formal student assessment plans (Gill, 1993; Patton et al., 1996), that publicly-controlled institutions are more likely than private institutions to have a formal assessment plan, and that the number of planning steps undertaken varies by institutional type (Patton et al., 1996). Profiles of assessment practices reveal that some institutions have examined and revised their mission statements as a consequence of initiating student assessment efforts (Banta et al., 1996).

Leadership and governance patterns comprise a second domain in this environment. Academic leadership is conceived as playing a critical role in supporting an institution's student assessment efforts (Banta & Associates, 1993; Banta et al., 1996; Braskamp, 1991; Jacobi et al., 1987; Rossman & El-Khawas, 1987). Three dimensions of leadership support have been discussed: patterns of participants in providing student assessment leadership, forms of leadership support, and leadership styles. Strong support from the president and senior administrators is viewed as crucial for institutional success in student assessment efforts (Banta et al., 1996; Duvall, 1994; Ewell, 1988a; Rossman & El-Khawas, 1987). Gaining the support of formal and informal leaders among an institution's faculty and staff has also been recommended (Banta, 1993; Sell, 1989; Young & Knight, 1993). Leadership support may take the form of communications regarding the importance (Duvall, 1994; Eisenman, 1991; Peacock, 1994; Sell, 1989b) and purpose (Banta & Associates, 1993; Rossman & El-Khawas, 1987; Terenzini, 1989) of student assessment and the commitment of resources to assessment initiatives (American College Testing, 1990; Eisenman, 1991; Jones & Ewell, 1993; Miller, 1988). A participatory leadership style has generally been advocated as most effective for promoting internal support for student assessment (Banta et al., 1996; Dixon, 1994; Ewell, 1988a).

A comparative case study of community colleges found that having faculty take on leadership roles for student assessment was related to the effectiveness of their student assessment programs (Lang, 1993). Beyond this study, evidence for the role of leadership support is based on descriptions of successful student assessment approaches at various campuses (Banta & Associates, 1993; Banta et al., 1996; Knight & Lumsden, 1990). No systematic examination of the relationship of different forms of leadership support or leadership styles to institutional support for student assessment was found.

Governance patterns refers to the administrative structures and processes used for making student assessment decisions. Discussions of administrative structures for student assessment consider the assignment of responsibilities for overseeing student assessment decisions to positions, organizational levels and functional areas within an institution (Ewell, 1984, 1987a, 1988a, 1988b; Nichols, 1991; Sims, 1992; Terenzini, 1989; Thomas, 1991). Situating student assessment responsibilities in academic affairs is thought to encourage the most internal support for assessment (Ewell, 1984, 1987a). Student assessment decision making processes vary in the degree to which authority for student assessment decisions is centralized within an institution's upper hierarchical levels or organizational units or decentralized across institutional levels and units (Banta & Associates, 1993; Banta et al., 1996; Ewell, 1984). Scholars have generally advocated the use of decision making processes that are decentralized (Astin, 1991; Banta et al., 1996; Ewell, 1984; Mather, 1991) and utilize significant involvement of administrators (Miller, 1988; Rossman & El-Khawas, 1987; Winston & Miller, 1994), faculty (Banta & Associates, 1993; Braskamp, 1991; Eisenman, 1991; Sell, 1989) and, to a lesser extent, students (Johnson et al., 1993; Somervell, 1993; Thomas, 1991).

A few studies have examined the administrative structures used for student assessment. Johnson and colleagues (Johnson et al., 1991) found that executive responsibility for student assessment was most often positioned in academic affairs, operational responsibility was more often given to administrators than to faculty, and less than half of respondent institutions had created a separate office for student assessment. In Cowart's (1990) survey of two-year colleges, assigning a coordinator for student assessment was positively associated with the breadth of student assessment information collected and internal perceptions of the effectiveness and importance of student assessment. A meta-analysis of comparative case studies (Riggs & Worthley, 1992) revealed that the assessment expertise of project coordinators was an important predictor of achieving positive assessment impacts. There is some evidence that centralization of decision making varies across the phases of planning, implementing, evaluating, and using student assessment (Johnson et al., 1991; Patton et al., 1996) and with institutional size (Patton et al., 1996). One study found faculty involvement in implementing student assessment decisions was a strong predictor of achieving positive outcomes from assessment efforts (Riggs & Worthley, 1992).

Assessment management policies and practices are considered a powerful means through which institutions can support and enhance the effectiveness of their student assessment efforts (Ewell, 1988a; Sell, 1989b). A number of content dimensions of institutional policies have been identified as potential influences on student assessment and specific practices have been recommended within each dimension. Policies and practices related to resource allocation, professional development, faculty evaluation and rewards, and academic planning and review figure prominently in the literature. To a lesser extent, dimensions of student assessment information systems, communication policies, and student-related policies have been discussed.

Administrators are urged to commit adequate fiscal, physical and staff resources to student assessment (Braskamp, 1991; Eisenman, 1991; Miller, 1988; Ryan, 1993; Thomas, 1991) and to consider linking units' student assessment efforts to institutional resource allocation decisions (Ewell, 1987a, 1987b, 1987c, 1988a; Gill, 1993; Thomas, 1991). The provision of professional development on assessment-related topics (Banta et al., 1996; Ewell, 1988b; Gentemann, Fletcher, & Potter, 1994; Young & Knight, 1993) and incentives or rewards (Astin & Ayala, 1987; Ewell, 1988b; Krueger & Heisserer, 1987) to faculty and administrators is expected to enhance their participation in assessment efforts. Conflicting opinions are offered as to whether institutions should include faculty involvement in student assessment among performance evaluation criteria for tenure and promotion (Ewell, 1984; Halpern, 1987; Ryan, 1993; Twomey, Lillibridge, Hawkins, & Reidlinger, 1995). Building formal linkages between assessment activities and processes for the planning and review of academic programs and departments (Chaffe-Stengel, 1992; Ewell, 1988a, 1997), curriculum (Ewell, 1984, 1988a, 1997; Hlebowitsh, 1995), and student academic support services (Erwin, 1991b; Hanson, 1982) is expected to increase internal support for assessment and the utilization of assessment information. In addition, scholars have stressed the need for institutions to develop comprehensive student assessment information databases (Astin & Ayala, 1987; Bray & Kanter, 1996; Sell, 1989b); to establish policies and practices facilitating the communication of student assessment purposes, activities and results with a broad range of internal and external constituents (Banta et al., 1996; Ewell, 1984, 1988a; Knight & Lumsden, 1990; Ryan, 1993; Terenzini, 1989; Thomas, 1991); and to devise policies that promote the involvement of student affairs personnel (Erwin, 1991b; Hanson, 1982) and students (Duvall, 1994; Loacker & Mentkowski, 1993; Van Stewart, 1996) in assessment efforts.

There is limited descriptive evidence regarding the extent to which institutions have used policies and practices regarding communication (Patton et al., 1996), student assessment information systems (Astin & Ayala, 1987; Gill, 1993), faculty development (Steele & Lutz, 1995), and program review (Barak & Sweeney, 1995) to support student assessment activities. One study found institutions' practices regarding the intended audience for assessment reports was predictive of achieving positive outcomes from student assessment projects but resource allocation practices were not (CSUITL, 1993). Beyond this study, evidence concerning the relationship of assessment management policies and practices to external influences or to institutions' assessment approaches, degree of internal support and utilization of student assessment information was not located.

Student assessment culture and climate constitute a fourth domain of the organizational and administrative environment (Banta & Associates, 1993; Banta et al., 1996; Braskamp, 1991; Miller, 1988). These terms have been used interchangeably in the higher education literature but they are conceptually distinct and may have different implications for institutions attempting to support student assessment efforts. Thus, their proposed relationships to student assessment and empirical evidence for these relationships will be considered separately for culture and climate.

Institutional culture refers to the unique and enduring constellation of deeply embedded values, beliefs, and ideologies collectively held by members about their institution (Peterson, 1988; Peterson, Cameron, Mets, Jones, & Ettington, 1986; Peterson & Spencer, 1990). More specifically, student assessment culture refers to members' perceptions of an institution's purposes, values, and philosophy related to student assessment. Scholars (Banta et al. 1996; Jones & Ewell, 1993; Wolff & Harris, 1994) have suggested assessment-supportive cultures have the following characteristics: members perceive the institution values teaching and learning (Banta & Associates, 1993; Eisenman, 1991; Hutchings & Marchese, 1990), student assessment (Banta et al., 1996; Mentkowski, 1991; Ryan, 1993; Sell, 1989b), and innovation and risk-taking (Braskamp, 1991; Kells, 1992; Ryan, 1993), and a participatory governance style is used for making decisions regarding student assessment (Jacobi et al., 1987; Kells, 1992; Mentkowski, 1991). The literature search did not locate any research that explicitly examined student assessment culture.

Climate has been defined as "current organizational patterns of important dimensions of organizational life, together with members' perceptions and attitudes toward them" (Peterson, 1988, p. 31). Three dimensions of climate have been distinguished. "Objective climate" refers to observable patterns of organizational behavior. The domains of assessment approach, assessment support strategy, leadership and governance patterns, and assessment management policies and practices discussed previously are dimensions of the objective climate for student assessment. "Perceived climate" refers to members' perceptions and beliefs about how the organization does or should function (Peterson, 1988; Peterson et al., 1991). Asking administrators, faculty, staff or students how their institution assesses student performance or supports student assessment provides a measure of the perceived climate for student assessment. "Motivational climate" refers to members' feelings or attitudes about the institution, its practices, and their role within it (Peterson, 1988; Peterson et al., 1991). Measures of members' commitment to, involvement in, or satisfaction with student assessment fit the construct of motivational climate for student assessment.

Scholars have suggested the following various dimensions of the organizational and administrative environment that may enhance the perceived and motivational climate for student assessment: 1) members believe that internal improvement rather than internal or external accountability is the primary purpose of student assessment (Braskamp, 1991; Eisenman, 1991; Ewell, 1988b; Jacobi et al., 1987), 2) members believe the student assessment approach is congruent with the institution's mission and values (AAHE, 1992; Braskamp, 1991; Terenzini, 1989), 3) institutional leaders are perceived as supporting student assessment (AAHE, 1992; Braskamp, 1991; Ewell, 1988a; Jacobi et al., 1987), 4) a participatory governance approach is used to make assessment-related decisions (Ewell, 1984, 1988b; Kells, 1992), 5) adequate resources are allocated for assessment efforts (AAHE, 1992; Banta et al., 1996), 6) assessment is integrated with processes for planning and resource allocation (Ewell, 1984, 1988a), and 7) incentives or rewards are provided for members who participate in assessment (Eisenman, 1991; Ewell, 1984; Hutchings & Marchese, 1990; Thomas, 1991).

Campus Trends survey data reveal that a high proportion of academic administrators were concerned about the possible misuse of assessment information by external agencies (El-Khawas, 1988, 1992, 1995). A comparison of findings from studies of institutions with comprehensive student assessment approaches (Hyman et al., 1994; Johnson et al., 1991) and those with less extensive assessment efforts (Muffo, 1992; Ory & Parker, 1989) suggests a negative association between internal concerns of this nature and the extent of internal support and involvement in student assessment. There is some evidence of a positive association between perceived leadership support for student assessment and the extensiveness of student assessment efforts undertaken by institutions (Jemmott, 1992/1993; Scott, 1991) and between faculty involvement in assessment activities and the improvement of faculty attitudes toward assessment (CSUITL, 1993). These measures of members' perceptions and attitudes regarding student assessment appear to fit the constructs of perceived and motivational climate. The literature search located no studies that purported to explicitly examine the influences upon and impacts of student assessment climate.

Scholars have characterized evaluation as one of the most important aspects of student assessment activity (Banta et al., 1996; Dennison & Bunda, 1989; Ewell, 1988b). Institutions have been urged to continually and systematically evaluate and revise their approaches to student assessment (AAHE, 1992; Banta et al., 1996; Loacker & Mentkowski, 1993; Sell, 1989b; Sims, 1992; Wolff, 1992). Guidelines (Nichols, 1991; Sims, 1992; Thomas, 1991) and criteria (National Forum on Assessment, 1992; Ory, 1992) for evaluating student assessment programs are available.

There has been little systematic research conducted regarding this domain. In one study (Patton et al., 1996), very few institutions had evaluated their student assessment approach. No studies were found that examined influences on institutions' decisions to evaluate student assessment activity or the relationship of evaluative efforts to the utilization of student assessment information.

Summary of Organizational and Administrative Support. The literature suggests specific strategy dimensions and associated institutional practices related to student assessment support strategy but few studies have included variables from this domain. Some descriptive evidence is available regarding the existence of external assessment mandates, purposes of assessment, and the nature of student assessment planning, but no research was found that systematically examined the relationship of specific external and internal support strategy dimensions to assessment approaches, other support practices, or uses of assessment information. Despite the importance attributed to leadership in shaping internal support for assessment, there has been virtually no empirical examination of its associated dimensions. Descriptive evidence is available regarding administrative structures and decision making processes used for student assessment but there has been limited analyses of the relationship of these dimensions to student assessment approaches, support, and uses. Assessment management policies are viewed as important means by which institutions can support assessment efforts and a number of specific management practices have been advocated. The extant literature offers little descriptive evidence regarding the extent to which institutions have used these policies and practices and provides even less evidence of their relationship to assessment support or utilization. Similarly, there has been considerable scholarly discussion of the influence of culture and climate on institutions' student assessment efforts, yet empirical support regarding influences on and the effects of culture and climate is scant. Finally, there has been little consideration of institutions' practices with respect to evaluating their student assessment approaches or the relationship of evaluation practices to other framework domains.

Without exception, the domains of the organizational and administrative support environment are discussed in the literature as potentially powerful influences on the nature and effectiveness of institutions' student assessment efforts. Many practices have been prescribed within each domain and propositions offered regarding their relationships to institutional support for and utilization of student assessment. Evidence of the influence of these domains and their specific dimensions on student assessment efforts is more often based upon scholars' or practitioners' observations than on systematic research. Consequently, little is known about the patterns of organizational and administrative activity that effectively support student assessment and promote the use of assessment information.

1.2.6 Studies of Institutional Uses and Impacts of Student Assessment

The higher education literature clearly contends that the assessment of student performance should not be undertaken as an end in itself but as a means to improve students' and institutions' performance (AAHE, 1992; Banta & Associates, 1993; Ewell, 1987b, 1988b;1997; Jacobi et al., 1987). Two domains of student assessment information use and impacts are discussed in the literature: the utilization of student assessment information in academic decision making, the institutional impacts of student assessment.

Institutional strategic decisions and academic management policies and practices are two areas of institutional decision making recommended as arenas for utilizing student assessment information. Included among the strategic decisions that may make use of assessment information are academic planning decisions (Ewell, 1987a, 1987b, 1997), revising institutional mission and goals (Banta et al., 1996; Ewell, 1984; Jacobi et al., 1987), and institutional resource allocations (Ewell 1984, 1987a, 1987b, 1987c, 1988b). In general, institutions have reported using student assessment information most often in planning decisions (Cowart, 1990; El-Khawas, 1989b; Johnson et al., 1991; Steele & Lutz, 1995) and to a lesser extent, in resource allocation decisions (Cowart, 1990; Ory & Parker, 1989).

Similarly, scholars have encouraged and practitioners have described the use of student assessment information in several areas of academic management policies and practices including academic program review (AAHE, 1992; Ewell, 1988a, 1997; Gentemann et al., 1994), professional development planning (Banta et al., 1996; Knight & Lumsden, 1990), faculty evaluation criteria (Ewell, 1988b; Jones & Ewell, 1993), reward structures for faculty and administrators (Ewell, 1984, 1988b; Thomas, 1991), and student support services (Banta, 1985; RiCharde, Olny, & Erwin, 1993; Williford & Moden, 1993). There is limited evidence from survey research that institutions have used student assessment information most often in decisions about program review (Barak & Sweeney, 1995) and student support services (Hyman et al., 1994; Ory & Parker, 1989), and least often in decisions about faculty development and faculty rewards (Cowart, 1990; Steele & Lutz, 1995).

Discussions of the institutional impacts from student assessment fall within two domains: impacts on dimensions of internal performance such as student performance, faculty behavior, curriculum, and student assessment culture and climate; and impacts on external indicators of institutional performance.

The ultimate criterion of the effectiveness of a student assessment approach is whether it results in changes that improve student learning and development. Overall, the literature offers limited evidence of this type of impact (Banta & Associates, 1993; Banta et al., 1996). Two multi-institutional studies offer conflicting views from institutional respondents as to whether assessment efforts resulted in improved student performance (CSUITL, 1993; Johnson et al., 1991). The majority of evidence is derived from the experiences of single institutions. A few institutions have reported increases in student achievement on standardized examinations (Bowyer, 1996; Krueger & Heisserer, 1987; Magruder & Young, 1996) and mean grade point averages (RiCharde et al., 1996). More often, institutions have reported changes in indirect measures of student performance such as increases in student retention (Blanzy & Sucher, 1992; Walleri & Seybert, 1993) and student involvement in learning (Friedlander, Murrell, & MacDougall, 1993; Krueger & Heisserer, 1987; Williford & Moden), and more positive student attitudes regarding educational experiences (Krueger & Heisserer, 1987; Williford & Moden, 1993).

Descriptions of assessment practices at a variety of institutions contend that student assessment efforts have stimulated changes in the teaching methods (Banta et al., 1996; Banta & Moffett, 1987; Lang, 1993; Friedlander et al., 1993; Walleri & Seybert, 1993; Young & Knight, 1993) and course-embedded assessments of student learning (Katz, 1993; Loacker & Mentkowski, 1993; Williford & Moden, 1993; Young & Knight, 1993) used by faculty. Evidence from multi-institutional research regarding the impact of student assessment on faculty instructional and assessment practices is both less available and less convincing (Cowart, 1990; CSUITL, 1993).

Evidence from multi-institutional research (Cowart, 1990; CSUITL, 1993; El-Khawas, 1989a, 1995) consistently reveals curriculum development and revision as the most common institutional impact of student assessment. Descriptions of single institutions' assessment experiences support these findings (Banta, 1996; Katz, 1993; Knight & Lumsden, 1990; Krueger & Heisserer, 1987; McClain, Krueger, & Taylor, 1986; Walleri & Seybert, 1993; Young & Knight, 1993).

The literature is suggestive of changes in student assessment culture and climate associated with engagement in student assessment. Descriptive reports from single institutions have noted increased emphasis on student learning as an institutional value (Williford & Moden, 1993), stronger institutional identification (Krueger & Heisserer, 1987), and greater collegiality of faculty-administrator relationships (Friedlander et al., 1993). These impacts are implicative of changes in student assessment culture. As a result of their assessment activities, some institutions have witnessed a shift in the perception of student assessment from that of a tolerated practice to an integrated part of the educational process (CSUITL, 1993; Friedlander et al., 1993; Young & Knight, 1993). This change is reflective of the perceived climate for student assessment. Reports of enhanced commitment to student assessment on the part of faculty (CSUITL, 1993; Hutchings & Marchese, 1990) and administrators (Johnson et al., 1991) are consistent with the motivational climate for student assessment. However, extant research has not explicitly examined changes in this domain of institutional functioning.

The association between institutional involvement in student assessment and relationships with the external environment has received limited consideration. The most commonly reported external use of student assessment information is to respond to state and accreditation reporting requirements (Banta et al., 1996; Banta & Moffett, 1987; Cowart, 1990; El-Khawas, 1989, 1995; Ory & Parker, 1989). A few institutions have attributed increases in institutional reputation (Young & Knight, 1993; Williford & Moden, 1993; McClain et al., 1986) and allocations of state funding (McClain et al., 1986) to their assessment activities and results. No systematic empirical examination of the relationship between institutional student assessment efforts and external impacts was located.

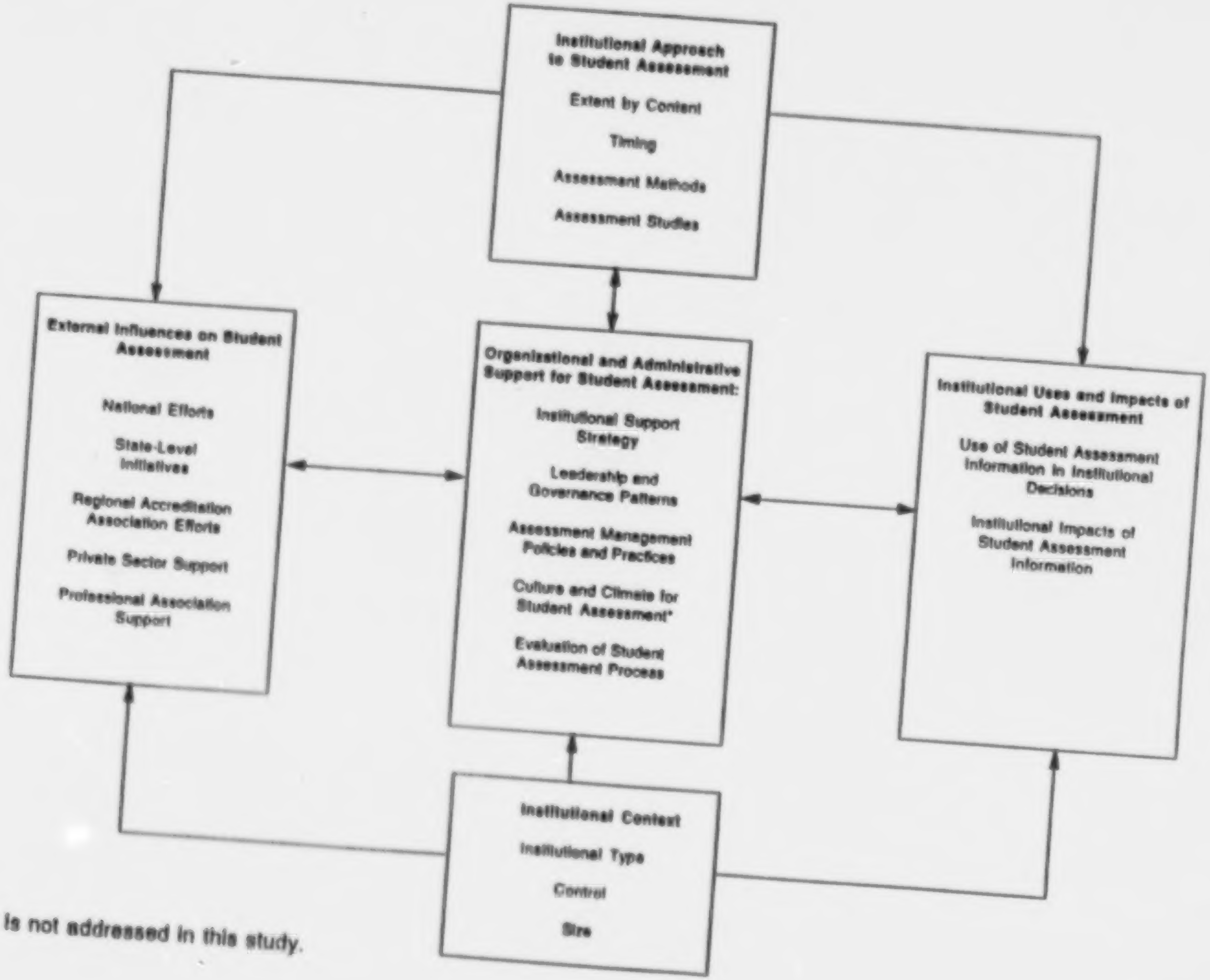
Summary of Uses and Impacts of Assessment. On the basis of available research, it appears that student assessment information is used most often in decisions regarding academic planning and academic program review. Curricular development and revision is the most frequently reported impact attributed to student assessment. There is limited evidence regarding the influence of student assessment on student performance or faculty behavior, and less regarding associated external impacts. Most extant knowledge—about whether and how institutions have utilized student assessment information and how the impacts it has produced affects the institution—comes from participant observation in single institutional field settings (Banta & Associates, 1993; Banta et al., 1996). To a lesser extent, empirical studies using case study or survey research methods have examined this environment. Almost without exception, the evidence produced has been descriptive. No examples of comparative research regarding institutional engagement in student assessment efforts and impacts achieved were found. Furthermore, there has been little systematic, empirical research regarding the relationship of external influences, internal support practices, or assessment approaches to student assessment utilization and impact (CSUITL, 1993).

1.3 Conceptual Framework

On the basis of the literature review, we developed a conceptual framework of institutional support for student support (see Figure 1.2 next page). This framework represents how institutions respond to external pressures for student assessment, how they approach student assessment, how they organize their organizational and administrative patterns to support student assessment, and how student assessment information is used by and impacts institutions. Further, it contends that the nature and patterns of influences on student assessment may vary with broad features of institutional context.

This framework is comprised of the five environments discussed in the literature review: external influences on student assessment, institutional approaches to student assessment,

Figure 1.2 Conceptual Framework of Institutional Support for Student Assessment


Institutional Approach to Student Assessment
Extent by Content
Timing
Assessment Methods
Assessment Studies
External Influences on Student Assessment
National Efforts
State-Level Initiatives
Regional Accreditation Association Efforts
Private Sector Support
Professional Association Support
Organizational and Administrative Support for Student Assessment:
Institutional Support Strategy
Leadership and Governance Patterns
Assessment Management Policies and Practices
Culture and Climate for Student Assessment*
Evaluation of Student Assessment Process
Institutional Uses and Impacts of Student Assessment
Use of Student Assessment Information in Institutional Decisions
Institutional Impacts of Student Assessment Information
Institutional Context
Institutional Type
Control
Size

*This domain is not addressed in this study.

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organizational and administrative support for student assessment, institutional uses and impacts of student assessment, and institutional context. The literature review permitted the identification of conceptual domains and dimensions with each environment. Table 1.3 displays the conceptual domains and dimensions in this framework and their definitions.

Table 1.3 Definitions of Conceptual Framework Dimensions

Domains and Dimensions	Definitions
External Influences	
National efforts	• national-level activities credited with stimulating student assessment in postsecondary institutions (e.g., national reports on undergraduate education and student assessment, development of National Education Goals, revision of criteria for recognizing accrediting agencies, financial incentives or support for institutions undertaking student assessment)
State-level initiatives	• state governance structure for higher education (consolidated governing board, coordinating board with regulatory authority, coordinating board with advisory capacity, planning agency) • form of student assessment initiative (statute, policy, combination, none) • specific dimensions of student assessment initiatives (purpose of student assessment initiative, locus of assessment initiative decision-making, requirements for student performance indicators and assessment instruments, institutional reporting requirements for student assessment, criteria for state evaluation of institutions' student assessment activities, resources provided for student assessment)
Regional accreditation association efforts	• student assessment-related reporting requirements (evidence of assessment plan, assessment results, intended or actual uses of assessment information) • provision of student assessment-related services (resource materials, conferences, workshops, consultation)
Private sector (business, foundations) support	• inclusion of employment-related measures in student assessment approach • provision of funds for student assessment
Professional association support	• provision of student assessment-related services (resource materials, conferences, workshops, consultation)
Institutional Approach to Student Assessment	
Extent by content	• extent to which institutions collect various types of student assessment data (e.g., cognitive, affective, behavioral)
Timing	• whether student assessment data is collected from students at one or more points in time
Assessment methods	• methods used to collect student assessment data (e.g., quantitative or qualitative, developed by institution or by external sources)

Table 1.3 continued

Assessment studies	• nature and number of analyses conducted and reports produced of student assessment data
Organizational and Administrative Support for Student Assessment	
Institutional support strategy	• institutional mission emphasis (undergraduate education, intended educational outcomes, student assessment) • purposes of student assessment (internal improvement, state or accreditation requirements)
Leadership and governance patterns	• leadership and governance activities addressing or promoting assessment • policies, structures and processes for planning and coordinating student assessment (e.g., nature of assessment plan or policy, participants in planning process, designation of executive and operational responsibility for assessment)
Assessment management policies and practices	• existence and extent of formally organized policies, activities and procedures intended to support the collection and use of student assessment information (e.g., resource allocation, information management, student involvement, professional development, faculty evaluation and rewards, academic planning and review)
Assessment culture and climate	• institution's purposes, values and philosophy related to student assessment • members' perceptions and attitudes concerning institution's student assessment efforts and their role in these efforts
Evaluation of student assessment process	• institutional evaluation of student assessment process
Institutional Context	
Institutional type	• institutional type (associate of arts, baccalaureate, master's, doctoral, research)
Control	• public or private control
Size	• institutional size (enrollment)
Institutional Uses and Impacts of Student Assessment	
Use of assessment information in institutional decisions	• influence of assessment information in decisions concerning strategic decisions or academic planning • influence of assessment information in decisions concerning faculty promotion or rewards
Institutional impacts of student assessment information	• impact of student assessment information on faculty behavior and attitudes (e.g., interest in teaching, teaching methods used) • impact of student assessment information on student performance (e.g., retention/graduation, grade performance) • impact of student assessment information on institution's external relationships (e.g., student applications, state funding, institutional reputation)

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External Influences. It is apparent that demands from a variety of external constituencies have played an important role in initiating and shaping student assessment efforts within postsecondary institutions. In particular, direct influences have been exerted by state-level initiatives, regional accreditation associations, professional higher education associations and the private sector. National efforts have largely played an indirect role in influencing institutions' assessment activities.

Institutional Approach to Student Assessment. External influences and the internal organizational and administrative environment may shape the design and implementation of an institution's approach to student assessment. Important dimensions along which student assessment approaches can be differentiated include: the content or type of student assessment data collected, the timing of student assessment measures, the methods used to collect student assessment data, and the level at which assessment data is aggregated for analysis.

Organizational and Administrative Support for Assessment. Five domains of organizational and administrative support for assessment were identified: institutional support strategy for assessment; leadership activities and governance patterns supporting student assessment; assessment management policies and practices; institutional evaluation of the student assessment process; and the culture and climate for student assessment. This study addresses only the first four of these domains of organizational and administrative support.

Institutional Context. Broad institutional characteristics such as institutional type, control and size are expected to moderate external influences on assessment, the institutional approach to student assessment, organizational and administrative support patterns, and institutional uses and impacts of assessment.

Institutional Uses and Impacts of Student Assessment. The primary concern of this framework is to examine the relationship of external influences, institutions' assessment approaches, and patterns of organizational and administrative support for assessment to the institutional uses and impacts of assessment information.

1.4 Research Questions

This research has been guided by the following specific questions:

1. What types of measures and approaches to student assessment have institutions adopted?
2. What is the nature of external influences for student assessment in postsecondary institutions?
3. What organizational and administrative support patterns for student assessment have institutions developed?
4. How have institutions used student assessment information and what impacts has it had?
5. How do patterns of external influences, student assessment approach, organizational and administrative support, and uses and impacts of student assessment vary by institutional type and control?
6. How are external influences related to institutional adoption of various approaches to student assessment, patterns of organizational and administrative support, and uses and impacts of student assessment information?
7. How are institutional approaches to and organizational and administrative support patterns for student assessment related to uses and impacts of student assessment information?
8. What is the relative influence of external factors, institutional approach to student assessment, and patterns of organizational and administrative support for assessment on institutional use and impacts of student assessment information? How does this influence vary by institutional type?

In chapter two, we describe the design and administration of our survey of institutional support for student assessment. In chapters three through seven, we present the results of descriptive analyses of survey data. In chapter eight, we describe the approaches used to reduce individual variables in our data into indices. Chapters nine through eleven present the results of bivariate and multivariate analyses of survey data. We summarize and discuss our survey results in chapter twelve.

2. Survey Design and Methods

2.1 A National Institutional Survey

2.1.1 Nature, Purpose and Focus of the Survey

This study, which addresses the research questions in section 1.4, involves a national survey of institutions of postsecondary education. This research is the first comprehensive national survey of how institutions approach student assessment, their patterns of organizational and administrative support for student assessment, and the uses and impact of those efforts.

The survey instrument was designed as an objective, quantifiable inventory of these institutional approaches, support patterns, and uses and impacts of student assessment. It was intended to assist institutions in obtaining a clearer picture of their own efforts, to provide a national profile of student assessment efforts, and to analyze the research questions addressed by this study.

The survey instrument and this study focus on student assessment of undergraduate education. They do not address assessment of graduate or continuing education. Postsecondary institutions are the primary unit of analysis—not individuals or academic sub-units.

2.1.2 Survey Population

The population for this survey is all public and private postsecondary institutions recognized by the U.S. Office of Education that offer undergraduate programs at the associate or baccalaureate degree level. This population includes institutions from all Carnegie Classifications (Associate of Arts through Research Universities). Specialized institutions and those not offering undergraduate education were excluded from the population. Neither were proprietary institutions included. In 1997 after eliminating the specialized institutions and those not offering associate or bachelors degrees, the U.S.O.E. recognized 2,524 institutions. The survey was sent to all these institutions—no sampling was involved.

2.2 The Survey Instrument and Database

2.2.1 Designing the Instrument

This national survey is the second phase of a four phase research program examining organizational and administrative support for student assessment. Phase One, conducted during 1996-97, involved an extensive review and synthesis of the literature on student assessment (Peterson et al, 1997). This literature review was summarized in section 1.2 and provided the conceptual framework discussed in section 1.3 that identified the major environments of external influences on, institutional approaches to, organizational and administrative support for, and institutional use and impacts of student assessment.

The literature review of these environments used two approaches to identify questionnaire items to be included in these environments. First, the dynamics, policies, or practices mentioned or reported in the literature were included as dimensions or items in the questionnaire. Second, we identified instruments used in other surveys of institutions on student assessment. Items in these instruments were reviewed for possible inclusion. Based on these sources, a preliminary instrument was designed to examine institutional activities, policies and practices in the environments of the conceptual framework.

2.2.2 Pilot Studies

The preliminary instrument was pilot tested with chief academic administrators in four different types of institutions: community college, liberal arts college, regional public university, and research university. In half the cases, the respondents completed the questionnaire and were then interviewed by one of our researchers. In the other half, the researcher sat in the room with the respondent and urged them to discuss their reactions as they completed the questionnaire. These pilot tests led to substantial revisions of some areas of the questionnaire, the addition and elimination of some items, and the clarification of others.

2.2.3 Content of the Instrument and Database

The instrument for this national institutional survey is included as Appendix I. It is organized in five major sections reflecting the conceptual framework and includes 244 items. Table 2.1 portrays the primary sections (conceptual domains) and subsections of the questionnaire and identifies the questionnaire items related to each.

Table 2.1. Dimensions of Institutional Support for Student Assessment

Dimension of Institutional Support	Survey Questions
External Influences on Student Assessment	
National efforts	IIIC1a-b
State-level initiatives	IIIA1-5, IIIC1c, IIIC2c
Regional accreditation associations	IIIB1-3, IIIC2b
Private sector support	IIIC1d
Professional association support	IIIC2a, d
Institutional Approach to Student Assessment	
Content	IA1-14
Timing	IA1-14
Methods	IB1-10, IC1-9, ID1-4
Assessment studies	IE1-10, IF1-6
Organizational and Administrative Support for Student Assessment	
Institutional support strategy	IIA1-2, IIB1-7
Leadership and governance patterns	IIC1-7, IID1-6, IIE1-9
Assessment management policies and practices	IVA1-4, B1-4, C1-5, D1-6, E1-4, F1-7, G1-7, H1-4
Culture and climate for student assessment	Not included in this survey
Evaluation of student assessment process	IIF1-2
Institutional Uses and Impacts of Student Assessment	
Decision making	VA1-12
Internal impacts	VB1-8
External impacts	VB9-15

Several dimensions reflected in the conceptual framework and included in the database for this study were drawn from two sources other than the survey instrument. The primary Institutional Context Variables (Institutional Type, Control, and other characteristics) are from the IPEDS database. Relevant state indicators identifying state characteristics, policies and practices related to the states' role in student assessment were drawn from NCPI Project 5.1's survey of state policies for student assessment (Cole, Nettles, & Sharp, 1997).

2.3 Conducting the Survey

2.3.1 Identifying Respondents

Since the study was designed as an objective, quantifiable national population survey of institutional activities, a complete mailing list of all U.S.O.E. postsecondary institutions was obtained. The survey was personally addressed to the chief academic officer at each institution. While the chief academic officer was the primary point of contact, it was not assumed that this individual would complete the instrument. Consequently, the cover letter encouraged them to have the questionnaire completed by the person or group which had the most comprehensive understanding of the institution's student assessment activities. (See Appendix II - B).

2.3.2 The Survey Process

The actual survey process included five steps. First, a preliminary letter which informed the chief academic officer of the nature and importance of this national study and the impending receipt of the questionnaire was sent two weeks in advance (See Appendix II - A). Second, the survey instrument was sent to the chief academic officer with a cover letter indicating its intended use as an institutional self study inventory as well as directions for completing and returning it (See Appendix II B). Third, a reminder postcard was mailed about a week after mailing the instrument (See Appendix II - C). Fourth, about one month following the mailing of the questionnaire, all non-responding institutions received a personal phone call from a member of our research team encouraging them to respond and offering to answer questions. A second mailing of the survey was sent targeting non-responding institutions as well as those contacted by phone who had requested another survey (See Appendix II - D). Throughout the entire survey process members of the research team were available by phone or e-mail to respond to any questions. The response rate prior to the phone follow up was 19%. An additional 36% responded after the phone calls.

Finally, about two months after the initial mailing, a thank you letter was sent to all responding institutions (See Appendix II - E).

2.4 Data Coding and Entry

As each institutional response was received, they were recorded, reviewed for accuracy of response, and checked to assure the IPEDS institutional identifier number was still attached (to allow for merging institutional characteristics from the IPEDS database).

The questionnaires were sent to a commercial firm for computerized data entry. All entries were double verified. A complete computer disk of all institutional responses was transferred to the research team when data entry was concluded. A random check of several questionnaires revealed no errors in data entry.

The survey data were then merged with selected institutional characteristics from the IPEDS database and with selected state level student assessment dimensions for each institution's state to form a comprehensive database for the study. A set of derived indices for each institution which was created during a data-reduction phase (see Section 2.5.2) would later be added to the database.

2.5 Analysis Plan

2.5.1 Item Review

Data analysis included several steps. First, frequency distributions, means and standard deviations of all questionnaire items for all responding institutions were reviewed to identify any inconsistencies among similar items or items for which there was little or no variation (i.e. could not be used in later relational analyses).

2.5.2 Descriptive Profiles by Conceptual Domain and Institutional Type and Control

Research questions one through four (section 1.1) ask what approaches to student assessment institutions have adopted, the nature of external influences for student assessment, what patterns of organizational and administrative support for student assessment institutions have developed, and what the institutional uses and impacts of student assessment have been. These will be addressed by examining the response profiles to the questionnaire items in the domains of each of these sections. Research question five asks how these student assessment domains vary by institutional type and control. These were analyzed using analyses of variance (or chi squares if appropriate) to examine differences on these institutional dimensions. Similarly, research question number six asks how external groups (primarily institutional accreditation region and state approaches to student assessment) influence the institutional domains of student assessment. These were also analyzed using analysis of variance (or chi square analysis as appropriate). Research question seven asks about the relationships among institutional domains of student assessment. These relationships were examined using correlations.

2.5.3 Data Reduction

The items in the questionnaire were designed to identify institutional patterns related to the domains in the conceptual framework. In order to ascertain whether such patterns among institutional policies, procedures, and activities existed, a data reduction was attempted. The intent was both to examine the patterns of related institutional policies, practices, and activities and to reduce the number of variables to be included in the relational analysis.

Because the response categories in different sections or subsections of the questionnaire varied, it was not possible to include all items in the entire questionnaire at once. Rather individual sections (or subsections) of the questionnaire with items related to a common dimension were factor analyzed. In some instances because of the categorical nature of the item responses, we created an additive index.

Each factor analysis was rotated using the oblique option. Items were included in the factor index that emerged if they met the following three criteria: a) were weighted most heavily on that factor, b) had a factor loading exceeding .40, and c) were conceptually similar in content to the other items in the factor. Individual items which had substantial variance but did not load heavily on any factor were retained as single item variables.

Two scores were created for each index. One was based on the mean score of the items in the index and was to be used for descriptive summaries since the index scale would then be analogous to that of the item response scale in the questionnaire. The other was a normalized score (0 - 1) to be used in subsequent statistical regressions.

Table 2.2 lists the resulting indices by name, how they were derived (factor analysis, separate item, or additive index of items not subjected to factor analysis), the alpha coefficient of each index, and the questionnaire items. The actual results of factor analysis are included in Appendix IV.

2.5.4 Relational Analysis

Research question number eight asks how the external influences, institutional approach and organizational and administrative support patterns affect the degree to which student assessment data are used and/or have positive institutional impacts. This question was analyzed using stepwise regression. Separate models—one for all responding institutions and then separate regressions by institutional type—were conducted and compared. For these relational analyses, we mainly used the indices derived in the data reduction phase of the analysis since the item level of analysis would involve too many predictor variables.

2.6 Survey Responses

As noted in the discussion of the survey population (section 2.1.2), the survey instrument was sent to 2,524 postsecondary institutions who offer undergraduate associate of arts and baccalaureate degrees. After all phases of follow up, we received 1,393 usable responses for an overall response rate of 55.1%. This rate is quite high for a national survey in which institutions are the unit of analysis.

Table 2.2 Summary of Derived Variables

Derived Variable	Variable Name	Type of Variable	Alpha	Survey Items
External Influences on Student Assessment	no derived variables			
Institutional Approach to Student Assessment				
Extent by Content				
academic intentions	extent1	item		IA1
postcollege assessment	postcol	factor	.83	IA11,12, 14
cognitive assessment	cognit	factor	.71	IA3-6

Table 2.2 continued

Extent by Content				
affective assessment	affect	factor	.68	IA7-9
academic progress	extent10	item		IA10
social roles	extent13	item		IA13
comprehensiveness of data collection	extenttt	additive index		IA1-10 (extent1-14)
Timing of data collection	timingtt	additive index		IA1-10 (time1.1-9.3)
Student assessment instruments				
number of instruments	instrtt	additive index		IB1-10
Other student assessment methods				
student-centered methods	studmeth	factor	.61	IC1-4
external methods	extmeth	factor	.63	IC8-9
transcript analysis	othmeth5	item		IC5
external examination	othmeth6	item		IC6
interviews with withdrawing students	othmeth7	item		IC7
Student assessment studies				
curricular experience studies	studcur	factor	.69	IE1-3, 8-9
co-curricular experience studies	studcoc	factor	.70	IE4-7
number of studies	studies	additive index		IE1-9
Student performance profiles or reports				
number of reports	reports	additive index		IF1-5
Organizational and Administrative Support for Student Assessment				
Institutional Support Strategy				
mission emphasis	missemph	additive index		IIA1a-c
internal purposes	intpurp	factor	.79	IIB3-6
accreditation purposes	purpose1	item		IIB1
state purposes	purpose2	item		IIB2
other purposes	purpose7	item		IIB7
Leadership and Governance Patterns				
administrative and governance activities	governin	additive index		IIC1-7
administrative and faculty support	adminspt	additive index		IID2-5
Leadership and Governance Patterns				
breadth of assessment planning group	grouptot	additive index		IIE3
number approving changes	approvtot	additive index		IIE5
Assessment Management Policies and Practices				
resource allocation practices	resalloc	additive index		IVA1-4
budget decisions	budgfact	additive index		IVA3-4
computer support	infosyst	additive index		IVB2-4
access to information	accessin	additive index		IVC1-4

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Table 2.2 continued

Assessment Management Policies and Practices				
distribution of reports	infodist	additive index		IVD1-4
student involvement	studinv	factor	.69	IVE1, 3-4
student incentives	ive2	item		IVE2
professional development	profdev	factor	.77	IVF2-5
faculty training required	ivf1	item		IVF1
student affairs	staffrs	factor	.84	IVF6-7
faculty evaluation	faceval	factor	.77	IVG1-5
hiring process	ivg6	item		IVG6
encourage faculty	ivg7	item		IVG7
academic planning and review	planrev	factor	.84	IVH1-4
Culture and Climate for Student Assessment	no derived variables			
Evaluation of Student Assessment Process				
conducted evaluation	evaluate	dichotomous		IIF1a-b
Institutional Uses and Impacts of Student Assessment				
Institutional Decision Making				
academic decisions	intdec	factor	.83	VA1-5, 8-12
faculty decisions	facdec	factor	.79	VA6-7
Institutional Impacts				
faculty impacts	teachimp	factor	.79	VB1-4
student impacts	studimp	factor	.82	VB5-8
external impacts	extimp	factor	.82	VB9-15

Table 2.3 displays the response rates by institutional type and control and by accrediting region. The response rates by institutional type vary from a low of 44% for Baccalaureate I institutions to a high of 76% for Research II institutions. The public institution response rate of 62% was higher than that for private institutions of 53%. The response rate by accreditation region ranged from a low of 40% in the Western region to a high of 62% in the North Central region. A table of institutional response rates by states is shown in Appendix III.

Table 2.3 Survey Response by Institutional Type, Control and Accrediting Region

Classification	Number of Surveys Sent	Number of Surveys Received	Response Rate (%)
Institutional Type			
Research I	86	52	60
Research II	37	28	76
Doctoral I	48	27	56
Doctoral II	58	38	66
Masters' I	429	263	61
Masters' II	89	52	58
Baccalaureate I	164	72	44
Baccalaureate II	432	244	56
Associate of Arts	1022	548	54
Institutional Control			
Public	1439	885	62
Private	951	508	53
Unclassified[a]	134	69	51
Accrediting Region			
Middle States	403	191	47
New England	186	87	47
Northwest	140	81	58
North Central	847	528	62
Southern	746	423	57
Western	206	83	40
Total	2524	1393	55

[a] Carnegie classification was missing for 134 institutions; institutional control was missing for 23 institutions within this subset.

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3. Institutional Approaches to Student Assessment

This chapter examines the institutional approaches to student assessment (research question one) and how those vary by institutional type and control (research question five). Specifically, the survey section on institutional approaches addressed the content or type of student assessment measures that institutions used, the timing of those assessments, the source of standardized instruments, the qualitative methods used, the special sub-populations of students studied, the types of assessment studies done, and the student performance reports and profiles that were prepared. This information provides the first comprehensive national picture of institutional approaches to student assessment. In the sections that follow, we profile the overall pattern for all institutions and then examine the variation by institutional type and by public or private control. Institutional type is examined by collapsing the nine Carnegie types (see Table 2.3) into five degree level groups—associate, baccalaureate, master's, doctoral, and research institutions.

3.1 Content of Student Assessment: Type and Extent.

Based on the literature review and the examination of institutional practices, ten types of student assessment measures were identified for currently enrolled students. Four additional types were identified for former students. The survey asked institutions to identify the extent to which they employed each type for assessing undergraduate students using the following scale: 1 = not collected, 2 = collected for some students, 3 = collected for many students, 4 = collected for all students. Table 3.1 displays the pattern of responses for all the responding institutions and the means and standard deviation for each type.

3.1.1 Type and Extent of Student Assessment - Currently Enrolled Students

The respondents reported that the three most commonly used types of student assessment measures collected for all students were student academic progress (69.6%), basic college-readiness skills (60.4%) and student academic intentions or expectations (53.5%). When the category "collected for many students" is combined with "collected for all students," these content types were used, respectively, by 82.4%, 86.4%, and 77.7% of the institutions. These three types

Table 3.1 Extent of Student Assessment by Type of Student Assessment Data for All Respondents

Type of Student Assessment Data Collected	Extent of Data Collection (%)[a] N = 1393						
For Currently Enrolled Students:	1	2	3	4	Missing	Mean	SD
1. Student academic intentions or expectations	9.1	10.7	24.4	53.5	2.3	3.25	.98
2. Basic college-readiness skills (reading, writing, mathematics)	4.7	7.7	26.0	60.4	1.3	3.44	.83
3. Higher-order skills (critical thinking, problem solving)	39.3	24.5	17.4	16.0	2.7	2.10	1.11
4. General education competencies	28.5	17.0	21.8	30.4	2.3	2.55	1.21
5. Competence in major field of study	19.4	25.8	25.6	25.8	3.4	2.60	1.08
6. Vocational or professional skills	31.6	31.5	24.0	9.0	3.9	2.11	.97
7. Personal growth and affective development (values, attitudes, social development)	34.3	29.3	20.7	12.8	2.9	2.12	1.04
8. Student experiences and involvement with institution	16.3	27.4	35.6	17.9	2.7	2.57	.97
9. Student satisfaction with institution	3.9	21.3	46.4	25.6	2.8	2.96	.80
10. Student academic progress (retention, graduation rates)	.7	2.9	12.8	69.6	13.9	3.76	.55
For Former Students:							
11. Vocational or professional outcomes (career goals, job attainment or performance)	7.2	28.9	46.9	15.3	1.8	2.72	.81
12. Further education (transfer, degree attainment, graduate study)	6.7	31.4	45.9	14.4	1.6	2.69	.80
13. Civic or social roles (political, social or community involvement)	46.1	28.6	17.9	4.2	3.2	1.8	.89
14. Satisfaction and experiences with institution after leaving	8.7	33.5	41.8	14.5	1.5	2.63	.84

[a]1=not collected; 2 = collected for some students; 3 = collected for many students; 4 = collected for all students

of student assessment data reflect a considerable attention to entry measures (intentions and basic skills) and objective, easily quantifiable measures of progress.

Four types of student assessment measures were in the mid range of those reported as collected for many or all students by over 50% of the institutions. When the collected for all and for many students are combined, the percentage frequencies of those four were: student satisfaction with the institution (72.0%), student experiences and involvement (53.5%), general education competencies (52.2%) and competence in the major field (51.4%). These categories, no doubt, reflect the increased attention paid to understanding and responding to students over the past decade and to curricular- or program-based assessment activities.

The three types of student assessment data most often reported as not collected were higher order skills (39.3% do not collect), personal growth and affective development (34.3%) and vocational or professional skills (31.6%). When combined with the category "collected only for some students," these figures increase respectively to 63.9%, 63.7%, and 63.1%. The content of these three types of student assessment data suggests considerably less attention is given to cognitive, affective, and vocational measures. In one sense, these assessment aspects are the most difficult to measure and probably most difficult on which to obtain faculty agreement regarding specific measures.

The overall pattern suggests a substantial amount of attention paid to collecting various types of student assessment data. This pattern, as we shall see later, varies to some degree by institutional type and control and, no doubt, reflects the considerable attention paid to these issues by state agencies and accrediting associations.

3.1.2 Type and Extent of Student Assessment - Former Students

Table 3.1 also provides some perspective on the collection of student assessment data on former students. For three of these types of measures, the most common response was "collected for many students" (all over 40%). When collected for many and for all students are combined, more than 50% of all institutions reported collecting student assessment data on: vocational or professional outcomes (62.7%), further education (60.3%), and satisfaction with the institution after leaving (56.3%). The student outcome data which was least often collected was students' civic or social roles (46% not collected and 28% collected for some students).

Once again, these figures suggest a substantial amount of interest in student assessment data on former students. However, this approach is mainly focused on students' careers and perceptions of the institution--measures that are fairly objective and easy to ascertain.

3.1.3 Extent of Student Assessment by Institutional Type - Current Students

Table 3.2 presents an analysis of the differences among five institutional types (collapsing the Carnegie typology by degree level) on the extent to which various types of student assessment

Table 3.2 Extent of Student Assessment by Institutional Type

	Extent of Data Collection[a]					
Type of Student Assessment Data Collected	A A (N=545)	Bacc (N=313)	Master's (N=311)	Doctoral (N=64)	Research (N=80)	F
For Currently Enrolled Students:	Mean	Mean	Mean	Mean	Mean	
1. Student academic intentions or expectations	3.38 (.90)	3.33 (1.10)	2.99 (1.03)	3.05 (.97)	3.15 (.95)	9.41**
2. Basic college-readiness skills	3.56 (.59)	3.35 (.97)	3.40 (.87)	3.27 (1.01)	3.08 (1.11)	8.50**
3. Higher-order skills	1.88 (1.02)	2.41 (1.20)	2.25 (1.11)	2.05 (1.01)	1.92 (1.07)	13.67**
4. General education competencies	2.41 (1.18)	2.76 (1.22)	2.61 (1.18)	2.53 (1.21)	2.32 (1.23)	5.25**
5. Competence in major field of study	2.30 (1.07)	2.92 (1.08)	2.86 (.98)	2.70 (1.01)	2.38 (1.02)	23.97**
6. Vocational or professional skills	2.25 (1.00)	1.97 (.97)	2.00 (.89)	2.10 (.87)	1.86 (.80)	6.80**
7. Personal growth and affective development	1.77 (.91)	2.51 (1.09)	2.29 (.98)	2.27 (.98)	2.57 (.99)	36.18**
8. Student experiences and involvement with institution	2.35 (.94)	2.79 (1.01)	2.68 (.93)	2.59 (.85)	2.78 (.86)	13.55**
9. Student satisfaction with institution	2.86 (.75)	3.13 (.86)	2.97 (.79)	2.78 (.83)	2.88 (.79)	6.48**
10. Student academic progress	3.58 (.68)	3.87 (.45)	3.86 (.41)	3.83 (.38)	3.97 (.16)	22.10**
For Former Students:						
11. Vocational or professional outcomes	2.73 (.83)	2.74 (.78)	2.75 (.78)	2.59 (.81)	2.44 (.75)	3.06*
12. Further education	2.71 (.80)	2.74 (.78)	2.71 (.77)	2.55 (.85)	2.42 (.73)	3.24*
13. Civic or social roles	1.37 (.67)	2.26 (.91)	2.08 (.87)	2.05 (.92)	1.86 (.86)	72.77**
14. Satisfaction and experiences with institution after leaving	2.57 (.87)	2.63 (.84)	2.75 (.77)	2.63 (.75)	2.47 (.78)	3.21*

[a] 1=not collected; 2=collected for some students; 3=collected for many students; 4=collected for all students

* $p < .05$; ** $p < .01$

Note: Differences across group means were estimated using one-way ANOVA.

data were collected. The mean scores of the extent to which each type of student assessment measure was collected are reported in the Table 3.2 (1 = not collected, 2 = collected for some students, 3 = collected for many students, 4 = collected for all students). ANOVAs were used to identify statistically significant differences among the institutional types on each type of student assessment data.

Not surprisingly, there were significant differences among the institutional types at the .01 level for all ten types of student assessment measures for currently enrolled students. Some general patterns deserve comment. While there is a statistical difference, it should be noted that student academic progress measures were emphasized at all five types of institutions with mean scores ranging from 3.58 to 3.97, reflecting the fact that these data are collected for *most* or *all* students at all five institutional types.

Turning to the institutional types, associate of arts institutions ranked highest among the five institutional types in their emphasis on three types of measures: student academic intentions (3.38), basic college-readiness skills (3.56), and vocational or professional skills (2.25). They were least likely to collect student assessment data on higher order skills (1.88), competence in the major field (2.30), personal growth and affective development (1.77), and student experiences and involvement (2.35). The higher emphasis on entry level performance data and on vocational or professional outcomes is not surprising given associate of arts institutions' traditional role as an open door college with substantial occupational and vocational emphasis. The limited attention to academic competence measures may reflect the difficulty of dealing with these issues for large numbers of part-time and/or less than degree-seeking students. Their lesser interest in patterns of student experience and involvement is somewhat surprising given the student-orientation of many associate of arts institutions.

Baccalaureate institutions, not surprisingly, were highest among the institutional types in emphasizing seven types of measures that included both performance measures such as higher order skills (2.41), general education competencies (2.76), competence in major field of study (2.92), and personal growth and development (2.51 - close to research universities' 2.57); and perceptions of the environment, such as student experiences and involvement (2.79) and student satisfaction with the institution (3.13). Baccalaureate institutions' greater focus on student assessment is further reflected in their not scoring the lowest among the institutional types in the extent of data collected on any of the types of student assessment measures. This pattern clearly reflects the image of baccalaureate institutions as being more focused on their students' personal and intellectual development.

Master's and doctoral-level institutions were not among the highest institutional type in collecting data on any type of student assessment measure for current students. However, they also tended not to be the lowest - except master's institutions on student academic intentions (2.99) and doctoral institutions on student satisfaction with the institutions (2.78). This pattern seemingly reflects the ambiguous role of these institutions in trying to balance both an undergraduate and a graduate emphasis.

Perhaps most surprising, research universities ranked highest among the institutional types on their collection of two types of student assessment data: personal and affective development (2.57) and student academic progress (3.97). They ranked lowest in their emphasis on basic college-readiness skills (3.08), general education competencies (2.32), and vocational and professional skills (1.86). The emphasis on personal development may reflect an attempt by these institutions to respond to the criticism of their lack of attention to undergraduate education. Their lower emphasis on basic skills may reflect their selective nature, and on vocational or professional skills, their more academic orientation or graduate school emphasis.

3.1.4 Extent of Student Assessment by Institutional Type - Former Students

The comparison among institutional types on assessment of former students is also portrayed in Table 3.2. The differences among these four types of measures was not as pronounced as it was for current students. Only civic or social roles showed differences at the .01 level of significance among the institutional types (the other three had differences at the .05 level).

Three institutional types were very similar in placing the greatest emphasis on collecting student assessment data on vocational or professional outcomes (associate of arts - 2.73, baccalaureate - 2.74, and master's - 2.75). Research universities were the lowest on this measure (2.44). Those same three institutional types also gave greatest emphasis to assessing further education (associate of arts - 2.71, baccalaureate - 2.74, and master's - 2.71). Again research universities gave the least emphasis to this measure (2.42). These patterns seem to reflect the interest that the less-than-doctoral-level institutions give to their students' post college vocational and educational patterns.

Not surprisingly, baccalaureate institutions placed greatest emphasis on assessing their former students' civic and social roles (2.26) and associate of arts colleges gave it the least (1.37). However, as noted, the emphasis is low for all types of institutions. Satisfaction with the institution after leaving was emphasized most by the master's level institutions (2.75) and least by the research universities (2.47).

While attempts to collect student assessment data from former students do not present as much contrast among institutional types, the patterns of difference do reflect the difference in institutional missions among them.

3.1.5 Extent of Student Assessment by Institutional Control

Because of the differing oversight of public institutions by state agencies and their interest in student assessment, comparisons of the extent to which public and private institutions collected various types of student assessment data were also made. The ANOVAs comparing the public and private practices are presented in Table 3.3

Both public and private institutions emphasized to a considerable degree the collection of data on student academic intentions and do not differ significantly (3.22 and 3.31, respectively). However, they differed significantly on the other nine types of student assessment measures for currently enrolled students. Public institutions gave greater emphasis only to basic college-readiness skills (3.54) and vocational or professional skills (2.15).

Although actual differences were not always large, private institutions gave greater emphasis to collecting data on higher order skills (2.34), general education competencies (2.71),

Table 3.3 Extent of Student Assessment by Institutional Control

Type of Student Assessment Data Collected	Extent of Data Collection[a]		
	Public Control (N=873)	Private Control (N=502)	
For Currently Enrolled Students:	Mean	Mean	*t*
1. Student academic intentions or expectations	3.22 (.97)	3.31 (1.00)	-1.79
2. Basic college-readiness skills	3.54 (.68)	3.27 (1.01)	5.35**
3. Higher-order skills	1.97 (1.03)	2.34 (1.20)	-5.68**
4. General education competencies	2.46 (1.18)	2.71 (1.23)	-3.68**
5. Competence in major field of study	2.45 (1.05)	2.86 (1.09)	-6.84**
6. Vocational or professional skills	2.15 (.95)	2.03 (1.00)	2.09*
7. Personal growth and affective development	1.87 (.92)	2.56 (1.10)	-11.68**
8. Student experiences and involvement with institution	2.40 (.93)	2.86 (.98)	-8.43**
9. Student satisfaction with institution	2.87 (.75)	3.13 (.85)	-5.69**
10. Student academic progress	3.70 (.59)	3.86 (.46)	-5.33**
For Former Students:			
11. Vocational or professional outcomes	2.71 (.80)	2.72 (.83)	-.18
12. Further education	2.66 (.80)	2.75 (.80)	-2.06*
13. Civic or social roles	1.55 (.78)	2.61 (.91)	-14.17**
14. Satisfaction and experiences with institution after leaving	2.61 (.83)	2.66 (.85)	-.96

[a] 1=not collected; 2=collected for some students; 3=collected for many students; 4=collected for all students

* $p < .05$; ** $p < .01$

Note: Means were compared using *t* test for independent samples.

competence in the major field (2.86), personal growth and affective development (2.56), student experiences and involvement (2.86), student satisfaction with the institution (3.13), and student academic progress (3.86).

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With respect to collecting student information on former students, there were fewer statistically significant differences. There was no difference between public and private institutions in data collection that emphasizes vocational or professional outcomes or satisfaction with the institution after leaving. Private institutions gave slightly greater attention to their former students' patterns of further education (2.75 at the .05 level) and considerably more attention to their civic and social roles (2.61 at the .01 level).

These overall patterns suggest considerable difference in emphasis by public and private institutions on the type and extent of student assessment information collected. The direction of differences, however, are not surprising given the nature of public institutions.

Summary. This review of the extent to which institutions use various types of student assessment measures suggests that institutions have begun to engage in a substantial amount of student assessment on a variety of types of measures. There is a greater emphasis on assessing current rather than former students. There are statistically significant differences among institutions on all ten types of student performance measures used for current students and all four types used for former students. These institutional type differences, to a degree, reflect differences of institutional mission. They also suggest a higher level of emphasis overall on student assessment in baccalaureate institutions, a relatively low emphasis in research universities, a mixed or intermediate emphasis in master's and doctoral institutions, and a high level of interest in associate of arts institutions in entry level and vocational or occupational measures. Public-private differences are also extensive and statistically significant on eleven of the fourteen types of student assessment measures. Despite state level interest in student assessment, the fact that privates report using nine of the eleven types of student assessment measures more often seems to reflect a greater development of student assessment activity in the private sector.

3.2 Timing of Student Assessment

A significant issue in the collection of student assessment information on currently enrolled students is when to collect that information. More importantly, student assessment experts encourage institutions to collect the same information at different points in time in order to examine the amount of change in students' performance and the factors influencing it to see if the institutional experience is providing educational "value added" (Astin, 1991). Survey respondents were asked to indicate the timing of the collection of different types of student assessment information. They indicated whether it was: not collected, collected at entry, collected while enrolled, or collected at exit. Respondents could check multiple responses for each type of assessment data collected. Table 3.4 displays the frequency of responses to this question and a column indicating how many times a respondent indicated the data were collected at two points in time.

Table 3.4 Timing of Student Assessment by Type of Student Assessment Data for All Respondents

Type of Student Assessment Data Collected	Timing of Data Collection (% of institutions) (N = 1393)					
For Currently Enrolled Students:	Not collected	Collected at entry	Collected while enrolled	Collected at exit	Collected twice[a]	Missing
1. Student academic intentions or expectations	9.1	81.0	31.8	17.0	25.0	2.4
2. Basic college-readiness skills (reading, writing, mathematics)	4.7	90.2	19.9	7.1	16.3	1.8
3. Higher-order skills (critical thinking, problem solving)	39.3	18.3	38.3	57.9	13.0	2.8
4. General education competencies	28.5	22.1	44.1	24.9	15.9	2.4
5. Competence in major field of study	19.4	7.1	47.5	49.6	22.7	3.6
6. Vocational or professional skills	31.6	6.7	42.9	38.1	20.6	4.5
7. Personal growth and affective development (values, attitudes, social development)	34.3	20.3	42.3	25.9	15.2	2.7
8. Student experiences and involvement with institution	16.3	5.6	56.9	43.4	20.3	4.3
9. Student satisfaction with institution	3.9	6.0	65.0	59.2	31.2	4.4

[a] collected at entry and while enrolled, at entry and exit, or while enrolled and at exit

Student assessment data collected most often at entry were student academic intentions (81.0%) and basic college-readiness skills (90.2%). Those most likely to be collected on exit were higher order skills (57.9%) and competence in the major field (49.6% - although 47.5% collected it while enrolled). Measures reported as most often collected while enrolled were: general education

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competencies (44.1%), vocational or professional skills (42.9%), personal growth and affective development (42.3%), student experiences and involvement (56.9%), and student satisfaction with the institution (65.0%).

Perhaps most revealing is the percentage of institutions indicating they collected a particular type of student information twice. The range of all ten types of data that were reported as collected twice was from 13.0% (higher order skills) to 31.2% (student satisfaction with the institution). Other types of data likely to be collected twice included: student academic intentions (25.0%), competence in the major field (22.7%), vocational or professional skills (20.6%), and student experience and involvement with the institution (20.3%). It seems apparent, although the figures are still low, that many institutions are beginning to collect some types of student assessment measures more than once.

3.3 Source of Student Assessment Instruments

A significant issue for institutions embarking on student assessment is whether to develop their own instrument, rely on one provided by the state (sometimes required) or purchase a commercially-available instrument. Respondents were asked to indicate which, if any, they used for the various types of student assessment measures. The responses are arrayed in Table 3.5. The first nine are the same as those used for currently enrolled students in Table 3.1 and the tenth is the alumni satisfaction measure identified for former students in Table 3.1. The other types of student assessment measures were not compatible with measurement by an instrument (although they might be defined by a standardized index).

3.3.1 Source of Student Assessment Instruments for all Institutions

The high percentage of institutions reporting that they do not use any instrument for measuring higher-order skills (42.2%), personal growth and affective development (37.5%), vocational or professional skills (33.5%), and general education competencies (31.3%) is reflective of the fact that these student assessment measures were of the type most often reported as not being used (see Table 3.1). Among institutions using instruments for measuring the various types of

Table 3.5 Source of Student Assessment Instruments by Type of Student Assessment Data for All Respondents

Type of Student Assessment Data	% Institutions Using Instruments from Various Sources[a] (N=1393)				
	Not used	Institutionally developed	State provided	Commercially available	Missing
1. Student academic intentions or expectations	20.5	51.0	4.2	31.7	2.9
2. Basic college-readiness skills (reading, writing, mathematics)	6.3	37.6	10.8	67.1	.9
3. Higher-order skills (critical thinking, problem solving)	42.2	29.1	2.2	32.0	2.7
4. General education competencies	31.8	40.1	5.2	32.8	2.2
5. Competence in major field of study	19.4	64.3	12.4	39.3	1.9
6. Vocational or professional skills	33.5	42.6	14.4	24.7	3.9
7. Personal growth and affective development (values, attitudes, social development)	37.5	39.2	2.3	29.6	2.9
8. Student experiences and involvement with institution	20.6	60.0	3.7	24.2	3.5
9. Student satisfaction with institution	3.8	72.9	8.2	34.7	1.4
10. Alumni satisfaction and experiences	9.6	77.7	7.8	15.0	1.9

[a] Institutions could select more than one source of instrument for each content area

student performance, it is clear that they place greatest reliance on institutionally-developed instruments. For eight of the ten measures of student assessment, institutions relied most heavily on institutionally-developed instruments. Over 50% of institutional respondents reported using an institutionally-developed instrument for measuring alumni satisfaction (77.7%), current student satisfaction (72.9%), student experiences (60.0%), and student academic intentions and expectation (51.0%). Use of commercial instruments was most common for measuring basic college-readiness skills (67.1%) and higher-order thinking skills (32.2%). There was, however, a reliance on commercial instruments by at least 30% of the institutions for six of the ten measures. Use of state provided instruments was quite limited on all ten measures. Also, since the response reported for each type of student assessment measure exceeded 100% of the responding institutions (they could check more than one), it is apparent that some institutions used instruments from more than one source.

3.3.2 Source of Instruments by Institutional Type

Table 3.6 shows the distribution of sources of the various instruments used by institutional type. There was a statistically significant difference among the institutional types regarding the non-use of a measure for seven of the ten measures of student assessment. The percentage differences, however, tend to reflect differences in institutional mission. For example, associate of arts institutions differed substantially from other types of institutions and were less likely to use instruments to measure personal growth and development (53.5% do not use such instruments), higher-order thinking skills (51.3% - about the same as research universities), general education competencies (45.5%), competence in the major field (27.3%), and vocational or professional skills (44.6%).

The reliance on institutionally-developed instruments is reflected in the fact that, despite some differences, over 70% of each institutional type relied on this approach for student satisfaction and alumni satisfaction; over 50% of each institutional type did so for competence in the major field and for student experiences and involvement with the institution.

A comparison of the use of state-provided instruments among the various institutional types was statistically significant for six of the ten types of student assessment measures but the percentage differences were small due to the limited use of this source of instruments (see Table 3.5). These differences were more dramatic in the comparison of public and private institutions in the next section (3.3.3).

The greatest difference in sources of instruments used by differing institutional types was in the use of commercial instruments. There were statistically significant differences for eight of the ten types of instruments. The only types of student assessment measures without such statistical differences were in the use of commercial instruments for measuring general education competencies and for vocational or professional skills. Among those measures where there was a

Table 3.6 Source of Student Assessment Instruments Used by Type of Data and Institutional Type

Type of Student Assessment Data and Source of Instrument	Source Used by Institutional Type (% of Institutions)[a]					
	Assoc of Arts (N=548)	Baccalaureate (N=316)	Master's (N=315)	Doctoral (N=65)	Research (N=80)	Chi-square
1. Student academic intentions or expectations						
Not used	17.9	21.0	23.3	28.3	20.3	6.1
Institutionally developed	60.1	46.0	46.0	45.0	53.2	24.3**
State provided	7.6	.3	3.0	3.3	2.5	28.5**
Commercially available	23.8	41.7	38.7	45.0	44.3	43.0**
Missing	2.0	2.2	4.8	7.7	1.3	
2. Basic college-readiness skills						
Not used	1.1	11.5	4.8	12.9	22.8	81.1**
Institutionally developed	20.7	49.8	53.0	58.1	46.8	129.6**
State provided	13.9	3.2	11.8	16.1	11.4	26.5**
Commercially available	84.8	57.8	58.8	38.7	45.6	139.3**
Missing	.5	.9	.6	4.6	1.3	
3. Higher-order skills						
Not used	51.1	39.0	34.2	35.4	51.3	29.6**
Institutionally developed	25.9	29.9	32.9	44.6	28.9	12.1*
State provided	2.1	1.9	1.6	3.1	2.6	.8
Commercially available	26.9	37.3	42.3	36.9	27.6	24.8**
Missing	2.9	2.5	2.5	—	5.0	
4. General education competencies						
Not used	34.8	27.5	31.3	33.8	45.5	10.8*
Institutionally developed	38.3	45.0	41.9	46.2	35.1	5.5
State provided	5.3	3.6	5.2	6.2	6.5	2.0
Commercially available	33.3	36.6	34.5	27.7	22.1	7.0
Missing	2.9	2.2	1.6	—	3.8	
5. Competence in major field of study						
Not used	29.9	11.2	8.4	14.1	27.3	79.0**
Institutionally developed	55.2	74.1	76.0	76.6	62.3	54.4**
State provided	14.4	9.3	15.9	12.5	2.6	14.6**
Commercially available	25.9	50.5	56.8	43.8	35.1	95.3**
Missing	2.2	.9	2.2	1.5	3.8	
6. Vocational or professional skills						
Not used	28.8	43.0	36.5	37.1	44.6	20.8**
Institutionally developed	50.4	33.4	43.2	46.8	41.9	22.9**
State provided	14.0	14.9	18.9	14.5	5.4	9.4

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Table 3.6 continued

Vocational or professional skills						
Commercially available	24.7	23.2	29.2	32.3	25.7	4.6
Missing	2.6	4.4	4.4	4.6	7.5	
7. Personal growth and affective development						
Not used	53.5	26.7	28.6	26.2	21.1	95.4**
Institutionally developed	29.0	47.6	45.7	56.9	56.6	54.8**
State provided	2.4	1.6	2.6	3.1	2.6	1.0
Commercially available	21.3	41.0	38.5	35.4	34.2	46.3**
Missing	2.4	2.8	3.5	—	5.0	
8. Student experiences and involvement with institution						
Not used	29.3	15.6	12.9	18.8	10.5	45.0**
Institutionally developed	57.0	65.8	66.0	65.6	71.1	12.4*
State provided	5.1	1.3	4.3	7.8	3.9	9.9*
Commercially available	17.1	35.2	30.7	26.6	30.3	39.3**
Missing	4.0	2.8	3.8	1.5	5.0	
9. Student satisfaction with institution						
Not used	3.9	5.8	2.9	6.2	—	7.7
Institutionally developed	75.0	71.7	70.6	73.8	77.2	2.9
State provided	11.5	2.9	8.7	10.8	8.9	19.0**
Commercially available	27.6	43.4	43.9	40.0	32.9	33.0**
Missing	1.5	1.6	1.6	—	1.3	
10. Alumni satisfaction and experiences						
Not used	15.5	7.1	4.2	3.2	6.4	38.1**
Institutionally developed	72.9	81.4	85.8	84.1	84.6	24.4**
State provided	12.1	1.3	8.7	6.3	9.0	31.1**
Commercially available	9.3	22.5	17.7	28.6	14.1	36.2**
Missing	2.4	1.6	1.6	3.1	2.5	

[a] Institutions could select more than one source of instrument for each content area.

*$p < .05$; **$p < .01$

statistically significant difference, the associate of arts institutions relied more than other institutional types on commercial instruments for one measure - basic college-readiness skills (84.8%); baccalaureate institutions relied most on two measures - personal growth and development (41.0%) and student experiences and involvement with the institutions (35.2%); master's institutions relied most on three measures - higher-order thinking skills (42.3%), competencies in the major field (56.8%), and student satisfaction with the institution (43.9%); and doctoral institutions relied most on two measures - student academic intentions and expectations (45.0%) and alumni satisfaction (28.6%). Research universities did not rely more than other institutional types on commercial instruments for any of the ten types of student assessment measures.

3.3.3 Source of Instruments by Institutional Control

Table 3.7 presents the sources of student assessment instruments used by public and private institutions. These comparisons are particularly interesting in light of the extensive state-level interests in student assessment and, more recently, in institutional performance indicators, which usually include student assessment indices.

In the response indicating instruments were not used, there were statistically significant difference on eight of the ten measures of student assessment. The two measures on which public and private institutions do not differ were student academic intentions and general education competencies. Public institutions were more likely to not use instruments for higher-order skills (45.8% did not use), competence in the major field (22.4%), personal growth and affective development (46.0%), student experiences with the institution (25.7%), and alumni satisfaction (11.4%). One might note these are areas not usually high on the list of outcomes stressed by state-level political interests. Private institutions on the other hand were less likely to use instruments to assess basic college-readiness skills (12.3%), vocational or professional skills (41.7%), and student satisfaction (5.4%).

In the area of institutionally developed instruments public and private institutions differed significantly on seven of the ten student assessment measures. The three areas with no differences included higher-order thinking skills, general education competence, and student satisfaction. The two areas in which public institutions used institutionally-developed instruments more were student academic intentions (55.3%) and vocational or professional skills (48.5%). Private institutions were more likely to develop their own instruments in five areas: basic college-readiness skills

Table 3.7 Source of Student Assessment Instruments Used by Type of Data and Institutional Control

Type of Student Performance Data and Source of Instrument	Source of Instrument Used by Institutional Control (% of Institutions)[a]		
	Public (N=885)	Private (N=508)	Chi-Square
1. Student academic intentions or expectations			
Not used	21.3	20.9	.02
Institutionally developed	55.3	47.8	7.2**
State provided	6.7	.2	32.1**
Commercially available	28.0	40.7	22.7**
Missing	2.8	3.1	
2. Basic college-readiness skills			
Not used	3.0	12.3	47.0**
Institutionally developed	30.0	51.9	65.3**
State provided	15.8	2.2	61.5**
Commercially available	74.5	55.9	50.7**
Missing	.8	1.0	
3. Higher-order skills			
Not used	45.8	39.1	5.7*
Institutionally developed	29.2	31.2	.6
State provided	2.7	1.4	2.3
Commercially available	30.9	36.5	4.5*
Missing	2.6	3.0	
4. General education competencies			
Not used	33.5	30.8	1.1
Institutionally developed	39.3	43.9	2.8
State provided	6.6	3.0	7.8**
Commercially available	33.6	33.4	.01
Missing	1.9	2.8	
5. Competence in major field of study			
Not used	22.4	15.2	10.1**
Institutionally developed	63.2	69.5	5.6*
State provided	14.3	9.8	5.7*
Commercially available	36.5	46.3	12.6**
Missing	1.9	1.8	
6. Vocational or professional skills			
Not used	31.1	41.7	15.2**
Institutionally developed	48.5	36.9	17.0**
State provided	15.4	14.4	.2
Commercially available	27.4	22.7	3.5
Missing	2.9	5.5	
7. Personal growth and affective development			
Not used	46.0	25.6	55.1**
Institutionally developed	35.3	49.2	24.9**
State provided	3.4	.6	10.3**
Commercially available	24.5	40.9	39.3**
Missing	2.8	3.1	

Table 3.7 continued

8. Student experiences and involvement with institution			
Not used	25.7	13.8	26.5**
Institutionally developed	58.8	68.2	11.7**
State provided	5.8	.6	22.3**
Commercially available	20.2	33.5	29.2**
Missing	3.8	3.0	
9. Student satisfaction with institution			
Not used	3.0	5.4	5.0*
Institutionally developed	74.9	72.2	1.2
State provided	12.6	.8	58.1**
Commercially available	30.8	43.0	20.8**
Missing	1.2	1.6	
10. Alumni satisfaction and experiences			
Not used	11.4	7.0	6.9**
Institutionally developed	77.1	83.1	7.1**
State provided	12.4	.2	64.6**
Commercially available	13.2	18.9	7.7**
Missing	1.9	2.0	

[a]Institutions could select more than one source of instrument for each content area.
*$p < .05$; **$p < .01$

(51.9%), competence in the major field (69.5%), personal growth and affective development (49.2%), student experiences and involvement with the institution (68.2%), and alumni satisfaction (83.1%).

In terms of state-provided instruments, there were eight types of student assessment measures on which there were statistically significant differences. The only two types with no difference between public and private institutions were: higher-order thinking skills and general education competence - areas in which states have evidently not played an active role. On the eight types of measures with significant differences, not surprisingly, public institutions were more likely to use state-provided instruments. The type of state-provided instruments that public institutions were most likely to use were: basic college-readiness skills (15.8%), competence in the major field (14.3%), student satisfaction with the institution (12.6%), and alumni satisfaction (12.4%). But even these percentages were quite low suggesting the limited reliance on state-provided instruments.

Public and private institutions differed significantly on commercially-available instruments for eight of the ten types of student assessment measures. The two on which they did not differ were general education competence and vocational or professional skills. On the eight types of measures with statistical differences, public institutions relied on commercial instruments more than private institutions only for basic college-readiness skills instruments (74.5% vs. 55.9%). In the other seven types of measures, private institutions used commercial instruments more for student academic intentions (40.7%), higher-order thinking skills (36.5%), competence in the major field (46.3%), personal growth and affective development (40.9%), student experiences and involvement (33.5%), student satisfaction with the institution (43.0%), and alumni satisfaction (18.9%).

Summary. By and large, institutions that engage in student assessment still tend to rely on institutionally-developed instruments. Institutions do rely to a moderate but lesser degree on commercially-available instruments (except in the case of basic college-readiness skills which draws heavily on commercial instruments). There are substantial differences among differing types of institutions and in the public-private control patterns. These differences often reflect the nature of institutional mission and the influence of state agencies in the public sector.

3.4 Alternative Student Assessment Methods

In recent years, there has been considerable interest in non-traditional methods of assessing students. Many of these alternative methods tend to be more innovative and/or qualitative—relying less on objective or quantitative measurement, surveys, standardized instruments, and the like. Nine such methods were identified in the literature. Institutions and respondents were asked to indicate the extent to which these methods were used at their institutions (1 = not used, 2 = used in some units, 3 = used in most units, 4 = used in all units). Table 3.8 presents the frequency with which institutions reported using these nine methods.

Table 3.8 Extent of Use of Other Student Assessment Methods for All Respondents

Other Student Assessment Methods	Extent of Use[a] by All Institutions (% of Institutions) (N=1393)						
	1	2	3	4	Missing	Mean	SD
1. Observations of student performance	8.2	62.7	21.2	6.1	1.8	2.26	.69
2. Student portfolios or comprehensive projects	6.5	79.0	10.1	3.4	1.0	2.10	.54
3. Student performance in capstone courses	18.2	54.6	17.4	7.5	2.4	2.15	.81
4. Student interviews or focus groups	23.8	67.6	5.6	1.4	1.7	1.84	.57
5. Transcript analysis	35.5	30.5	10.6	20.4	3.1	2.16	1.14
6. External examination of students	8.9	80.8	6.7	2.1	1.4	2.02	.49
7. Surveys or interviews with withdrawing students	16.8	46.2	14.7	20.5	1.7	2.40	1.00
8. Alumni interviews or focus groups	30.0	54.1	8.1	6.0	1.8	1.90	.79
9. Employer interviews or focus groups	27.4	59.7	7.5	3.7	1.7	1.87	.70

[a] 1=not used; 2 = used in some units; 3 = used in most units; 4 = used in all units

3.4.1 Extent of Use of Alternative Methods

A careful examination of the table suggests institutions used alternative methods only in a limited fashion. The most frequent response on all nine methods was collected for some students. As indicated by their mean scores, the methods most often used were: surveys or interviews with withdrawing students (2.40), observations of student performance (2.26), transcript analysis (2.16), and student performance in capstone courses (2.15). But even these mean scores were only slightly above 2 (used in some units) on the response scale. Only two of the methods were used in all units by more than 20% of the institutions: surveys or interviews with withdrawing students (20.5%) and transcript analysis (20.4%). No other method was reported as used in all units by more than 7.5% of the institutions.

The four least often used methods as indicated by these mean scores were: student interviews or focus groups (1.34), employer interviews or focus groups (1.87), alumni interviews or focus groups (1.90), and external examinations of students (2.02). Three of these four methods

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were reported as not used by over 25% of the responding institutions: transcript analysis (35.5%), alumni interviews or focus groups (30.0%), and employer interviews or focus groups (27.4%).

3.4.2 Extent of Use of Alternative Methods By Institutional Type

Table 3.9 profiles the mean scores of institutional use of these other methods of student assessment by institutional type. The only method on which there was no significant difference among the five institutional types was transcript analysis—one of the four methods most frequently used. The other eight methods all showed statistically significant differences by institutional type.

Associate of arts institutions reported the most frequent use of only one method: employer interviews or focus groups (1.98)—still low given the associate of arts institutions' strong occupational emphasis and regional focus. They used four methods least frequently among the five institutional types: student portfolios or comprehensive projects (1.95), alumni interviews (1.80), student performance in capstone courses (1.78), and student interviews or focus groups (1.65). While some of these comparisons are not surprising, the low use of interviews or focus groups with students is unexpected.

Baccalaureate institutions were most likely to use alternative methods of student assessment. They reported the highest level of use compared to the other types of institutions on four of the eight alternative methods: surveys or interviews with withdrawing students (2.78), student performance in capstone courses (2.50), observation of student performance (2.34), and student portfolios or comprehensive projects (2.29). They were least likely among the institutional types to use employer interviews or focus groups (1.66). These methods seem to reflect their focus on individual students and on retention.

Master's and doctoral institutions tended to be neither highest nor lowest among the institutional types in their use of alternative methods. Master's institutions were highest in using alumni interviews and focus groups (2.03) and doctoral institutions were highest on two alternative methods: student interviews and focus groups (2.06) and external examination of students (2.18). Master's and doctoral institutions were not lowest in using any of the methods, reflecting their middle of the pack approach to student assessment.

Table 3.9 Extent of Use of Other Student Assessment Methods by Institutional Type

Other Student Assessment Methods	Extent of Use by Institutional Type (% of Institutions)[a]					
	Assoc of Arts (N=539)	Baccalaureate (N=315)	Master's (N=314)	Doctoral (N=65)	Research (N=78)	F
	Mean	Mean	Mean	Mean	Mean	
1. Observations of student performance	2.22 (.72)	2.34 (.70)	2.24 (.59)	2.26 (.62)	2.00 (.53)	4.40**
2. Student portfolios or comprehensive projects	1.95 (.46)	2.29 (.65)	2.18 (.50)	2.25 (.56)	2.04 (.38)	24.77**
3. Student performance in capstone courses	1.78 (.71)	2.50 (.84)	2.41 (.71)	2.47 (.82)	2.11 (.53)	62.75**
4. Student interviews or focus groups	1.65 (.54)	1.96 (.64)	1.98 (.47)	2.06 (.43)	1.92 (.42)	30.04**
5. Transcript analysis	2.19 (1.15)	2.24 (1.18)	2.13 (1.11)	1.94 (1.04)	1.19 (.94)	2.11
6. External examination of students	2.01 (.43)	1.98 (.56)	2.08 (.46)	2.18 (.56)	1.88 (.53)	4.99**
7. Surveys or interviews with withdrawing students	2.26 (.99)	2.78 (1.03)	2.35 (.95)	2.31 (.96)	2.08 (.70)	17.25**
8. Alumni interviews or focus groups	1.80 (.81)	1.95 (.78)	2.03 (.76)	1.95 (.72)	1.96 (.80)	4.73**
9. Employer interviews or focus groups	1.98 (.75)	1.66 (.65)	1.87 (.58)	1.86 (.66)	1.82 (.66)	10.88**

[a] 1=not used; 2=used in some units; 3=used in most units; 4=used in all units

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means were estimated using one-way ANOVA.

Research universities, like associate of arts institutions, did not use alternative student assessment methods extensively. They were not the highest user among the institutional types of any alternative student assessment method but they were lowest on three methods: surveys or interviews with withdrawing students (2.00), observations of student performance (2.00), and external examination of students (1.88). Despite their fairly high use of traditional methods of student assessment (Table 3.2), they seem not to engage in alternative or less traditional methods.

3.4.3 Extent of Use of Alternative Methods by Institutional Control

Table 3.10 compares the mean scores of extent of use for each of the nine methods between institutions of public and private control. Seven of the nine methods showed statistically

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significant differences. The two methods for which there was no difference were transcript analysis and alumni interviews or focus groups.

Table 3.10 Extent of Use of Other Student Assessment Methods by Institutional Control

Other Student Assessment Methods	Extent of Use by Control[a] (% of Institutions)		
	Public (N=875)	Private (N=504)	*t*
1. Observations of student performance	2.21 (.69)	2.34 (.70)	-3.39**
2. Student portfolios or comprehensive projects	2.00 (.46)	2.28 (.63)	-8.54
3. Student performance in capstone courses	1.97 (.72)	2.46 (.85)	-10.93**
4. Student interviews or focus groups	1.77 (.53)	1.97 (.62)	-5.93**
5. Transcript analysis	2.12 (1.10)	2.24 (1.19)	-1.78
6. External examination of students	2.06 (.44)	1.95 (.57)	3.77**
7. Surveys or interviews with withdrawing students	2.21 (.93)	2.72 (1.04)	-9.22**
8. Alumni interviews or focus groups	1.88 (.80)	1.93 (.77)	-1.22
9. Employer interviews or focus groups	1.97 (.69)	1.71 (.68)	6.79**

[a] 1=not used; 2=used in some units; 3=used in most units; 4=used in all units.

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Group means were compared using *t* test for independent samples.

Public institutions used external examinations of students (2.06) and employer interviews or focus groups (1.97) more frequently than private institutions. In the case of external exams, this may reflect attempts to provide institutional evidence of student performance or program quality for state program reviews.

Private institutions, on the other hand, used five other methods more than public institutions: surveys or interviews with withdrawing students (2.72), student performance in capstone courses (2.46), observations of student performance (2.34), student portfolios or comprehensive projects (2.28), and student interviews or focus groups (1.97). Not only did they use these methods more than their public counterparts, but the mean scores suggest they used them more frequently than the two methods on which public institutions predominate.

Summary. While the more qualitative alternative methods are used less frequently than the instruments identified in section 3.3, most institutions report using them for some students. There are significant differences among institutional types on eight of these nine methods. These differences suggest that the highest level of use of alternative methods is among baccalaureate institutions and that the lowest level of use is among research universities and associate of arts institutions. The public-private comparison indicates that private institutions are more likely to be engaged in the use of these other methods. This finding may suggest that state pressures for student assessment drive public institutions toward the more objective, quantifiable methods and instruments.

3.5 Assessing Special Student Populations

As postsecondary institutions have increased their enrollment of non-traditional (part-time, older) students, many have pointed out the need for special student assessment approaches to reflect their unique characteristics, learning styles, needs, and life situations. In the survey, institutions were asked whether they used different assessment methods for some of these special student populations. Table 3.11 displays the percentage of institutions who reported using different assessment approaches or methods for such groups and compares them by institutional type and control.

For all respondents it is clear that most institutions did not use a different assessment approach for special student populations. While 21.5% reported using a special approach for distance education students, very few adopted special approaches for adult (9.6%), part-time (4.9%), or minority students (2.2%). Despite the lack of any special assessment approach, institutions did give considerably more attention to profiling and reporting on special student populations or subgroups (see Table 3.13).

There was little difference in studies of special populations by institutional type. The only statistical difference was on studies of adult students where baccalaureate institutions and master's institutions reported using special approaches to a greater degree than the other institutional types (17.3% and 16.1%, respectively). Interestingly, associate of arts institutions gave least attention to

Table 3.11 Use of Different Student Assessment Methods for Special Student Populations by Institutional Type and Control

Student Population	Institutions (%) Using Different Student Assessment Methods for Special Student Populations									
		Institutional Type (N=1305)						Institutional Control (N=1366)		
	All N=1366	Assoc. of Arts N=545	Baccalaureate N=306	Master's N=311	Doctoral N=64	Research N=79	F	Public N=874	Private N=492	*t*
1. Adult students	9.6	2.8	17.3	16.1	3.1	8.1	68.1**	3.4	20.6	106.0**
2. Part-time students	4.9	3.0	7.3	4.8	3.2	6.7	9.4	3.7	7.2	8.4**
3. Minority students	2.2	1.8	1.0	3.2	3.1	3.8	5.3	2.5	1.6	1.2
4. Distance education students	21.5	20.9	21.8	25.1	15.8	26.7	3.7	19.7	27.1	6.4**

* $p < .05$; ** $p < .01$

Note: Differences in group means for institutional type were estimated using one-way ANOVA. Differences in group means for institutional control were compared using *t* test for independent samples.

special student populations compared to the other institutional types for all four special student populations. This finding may reflect either the fact that their students are the most diverse—therefore all are special—or their general pattern of devoting less attention to student assessment.

Public and private institutions differed statistically on three of the four special student populations. In all three cases, private institutions gave more attention to these special populations than their public counterparts: adult (20.6%), part-time (7.2%), and distance education (27.1%).

Summary. Overall, institutions seem not to be adopting different assessment methods for special student populations. While there are few differences among institutional types, associate of arts institutions consistently give the least attention to this area. Despite state pressures for student assessment, it appears private institutions still give greater attention to using different methods for special populations.

3.6 Student Assessment Studies and Reports

As the practice of student assessment has grown, institutions have increasingly looked for ways to transform that data into useful information. The extent to which institutions use student assessment data to conduct studies of their students and to prepare reports for institutional use is an important dimension of the institution's approach to student assessment.

3.6.1 Studies of Student Assessment

Table 3.12 reports the frequency with which responding institutions reported doing nine different types of studies of the relationship between certain student experiences or institutional practices and student performance. What stands out are the two highest responses: studies of the relationship between admissions standards/policies and student performance (42.1%) or no studies (37.5%). The two least reported types of studies were those relating student-faculty interaction (14.1%) and classroom, library and/or computing resources (16.6%) to student performance. Between 20-30% of the responding institutions reported doing studies on the relationship of the following to student performance: course taking patterns (25.6%), different instructional and teaching methods (21.4%), extra-curricular activities (23.8%), residence arrangements (21.2%), financial aid or employment (29.7%), and academic advising (25.9%). At this time, a significant number of institutions either do no studies or only those related to admissions, about one-fifth to one-third focus on student academic or other institutional experiences, and very few address the key area of student-faculty interaction and the area of educational resources. This latter result is surprising given the extensive research on the impact of student-faculty interaction on student performance and the growing use of educational technology.

3.6.2 Studies By Institutional Type

Table 3.12 also portrays the degree to which different types of institutions conducted differing kinds of studies. Institutional types differed to a statistically significant degree on how they study the relationships between student experiences and performance. Associate of arts institutions were most likely to be doing no studies (44.7%) and research universities most likely to be doing some (16.0% do no studies). This low level of activity by the associate of arts institutions may reflect the relative lack of development of institutional and educational research offices, which are usually present in most research universities. There were also two types of studies on which there were no differences by institutional type: academic advising and classroom, library, and computing resources.

Table 3.12 Student Assessment Studies Conducted by All Institutions and by Institutional Type and Control

Studies of Relationship Between Student Performance and the Following Experiences	Institutions (%) Conducting Studies									
		Institutional Type N=1264						Institutional Control N=1329		
	All N=1329	Assoc. of Arts N=519	Bacca-laureate N=304	Master's N=302	Doctoral N=64	Research N=75	Chi-Square	Public N=845	Private N=484	Chi-Square
1. Student course-taking patterns	25.6	26.0	22.7	24.2	34.4	41.3	13.7**	28.2	21.1	8.2 **
2. Exposure to different instructional or teaching methods	21.4	25.0	16.1	18.9	25.0	24.0	11.1*	23.1	18.6	3.7
3. Patterns of student-faculty interaction	14.1	10.6	16.1	13.2	20.3	29.3	22.8**	13.1	15.9	1.9
4. Extra-curricular activities	23.8	14.5	30.3	30.1	37.5	36.0	50.3**	20.0	30.4	18.3 **
5. Residence arrangements	21.2	6.0	26.6	32.1	40.6	53.3	156.6**	16.4	29.5	31.6 **
6. Student financial aid and/or concurrent employment	29.7	27.2	27.0	30.5	37.5	49.3	18.5**	29.6	30.0	.02
7. Admission standards or policies	42.1	27.4	49.7	51.7	56.3	64.0	84.7**	38.0	49.2	15.8 **
8. Academic advising patterns	25.9	23.9	26.6	28.8	25.0	26.7	2.6	25.3	26.9	.4
9. Classroom, library and/or computing resources	16.6	19.1	16.8	14.2	15.6	9.3	6.4	16.3	17.1	.1
10. Do not study the relationship between the above experiences and student performance	37.5	44.7	34.2	34.8	28.1	16.0	31.1**	39.8	33.7	4.9 *

* $p < .05$; ** $p < .01$

However, on seven of the nine types of studies, there were statistically significant differences by institutional type. Given their high rate of not conducting studies of student performance, it is not surprising that associate of arts institutions were least likely to be conducting five of the seven types of studies on which there were institutional differences. However, they were most likely (25.0% - along with doctoral and research universities) to conduct studies of exposure to different instructional and teaching methods and student performance. This finding, no doubt, reflects their focus on teaching as their primary function.

Surprisingly, baccalaureate institutions, which were most likely to conduct various types of student assessment (section 3.1), were not highest among the five institutional types on any of the different types of studies. In fact, they were least likely to undertake two studies on which institutions differed: student course-taking patterns (22.7%) and exposure to different instructional and teaching methods (16.1%). Given these institutions' predominant focus on undergraduate education, this is surprising, but may reflect the lack of development of an institutional or educational research function.

Master's institutions were neither highest nor lowest on any of the types of student studies. Doctoral institutions on the other hand were most likely (along with research universities and associate of arts institutions) to do studies of exposure to different instructional or teaching methods (25.0%).

Given their overall emphasis on student studies, it is not surprising that research universities were most likely to conduct five of the seven types of student studies on which institutions differed: course-taking patterns (41.3%), student-faculty interaction (29.3%), residence arrangements (53.3%), financial aid or employment (49.3%), and admissions standards and policies (64.0%). Furthermore, they were second most likely on two other types: exposure to different instructional or teaching methods (24.0% - similar to associate of arts and doctoral institutions) and extra-curricular activities (36.0% - similar to doctoral institutions). These results may reflect both the recent emphasis on undergraduate education and the well developed offices of institutional or educational research at such institutions.

3.6.3 Studies By Institutional Control

In comparing public and private institutions (Table 3.12), publics were more likely to report not doing any studies of the relationship between student experience and performance (39.8%) than were their private counterparts. However, publics and privates only differed statistically in the degree to which they conducted four of the nine types of studies. Privates were more likely to do studies related to admissions standards and policies (45.2%), extracurricular activities (30.4%), and residence arrangements (29.5%), while publics were more likely to do studies of student course-taking-patterns (28.2%).

3.6.4 Reports and Profiles

Respondents were asked about the level at which they aggregated information on student assessment data for profiling and reporting these results. Responses are presented in Table 3.13.

For all respondents, the most (by far) reported preparing either institution-wide reports (69.2%) or reports aggregated by academic programs on departments (65.3%). Institutions also reported giving considerable attention to studies of special populations or subgroups of students (45.7%). They gave lesser attention to preparing reports or profiles by school or college (30.6%) or by course or groups of courses (35.9%). Only 10.9% of the responding institutions reported providing no reports.

3.6.5 Reports and Profiles By Institutional Type

Comparing the reporting practices across institutional types (see Table 3.13), we found no statistically significant differences on the most common pattern of institution-wide aggregation of reports. This similarity in pattern may reflect either common accreditation requirements or a tendency to incorporate assessment results in publicity documents. Institutions differed significantly at four of five levels of aggregation: associate of arts institutions were most likely among the institutional types to provide reports at the course level (45.6%) and least likely to provide school or college reports (13.0%). This finding may reflect their emphasis on teaching and/or examining different instructional and teaching methods (Table 3.12). Baccalaureate

Table 3.13 Student Performance Reports Provided by Institutional Type and Control

Levels of Aggregation of Student Performance Reports	Institutions (%) Providing Reports									
		Institutional Type N=1296						Institutional Control N=1363		
	All N=1363	Assoc. of Arts N=539	Bacca-laureate N=309	Master's N=305	Doctoral N=65	Research N=78	Chi-Square	Public N=885	Private N=508	Chi-Square
1. Institution wide	69.2	66.4	68.9	73.8	72.3	73.1	5.8	71.6	65.0	6.4*
2. Schools or colleges	30.6	13.0	19.1	54.4	67.7	76.9	299.4**	32.2	27.7	3.0
3. Academic programs or departments	65.3	60.7	64.1	76.1	69.2	66.7	21.4**	66.9	62.5	2.6
4. Special populations or subgroups of students	45.7	45.6	36.6	50.8	50.8	65.4	26.3**	49.8	38.5	16.1**
5. By course or groups of courses	35.9	45.6	29.4	27.2	33.8	30.8	38.8**	40.9	26.9	27.0**
6. Do not provide any reports	10.9	13.4	9.4	7.2	7.7	10.3	9.2	9.9	12.6	2.5

* $p < .05$; ** $p < .01$

institutions gave little attention to these reports. They were least likely to do reports on special populations or subgroups of students (36.6%) and neither least likely nor most likely among the institutional types to aggregate reports at any other level. Master's institutions were more likely than the other types of institutions to provide reports at the academic program or department level (76.1%) and least likely to provide them at the course level (27.2%). Doctoral institutions were neither the most likely nor least likely among the institutional types to provide reports at any level. Research universities were most likely than other institutional types to provide reports at the school or college level (76.9%) or for special populations and subgroups of students (65.4%).

3.6.6 Reports and Profiles by Institutional Control

Public and private institutions did not differ statistically on their reporting at the school or college level or at the academic program or department level (Table 3.13). However, at the three levels of aggregating reports on which they did differ, public institutions were higher than the privates in all three areas: institution wide (71.6%), special populations or student subgroups (49.8%), and at the course level (40.9%). This difference may reflect state level pressures for reporting and accountability that often focuses on institutional indicators, special student populations, and instructional effort and effectiveness.

Summary. It is clear that while institutions are giving some attention to studying factors that influence student performance, there are still many institutions who do not. To the extent studies are done, attention is primarily on enrollment management issues related to the influence of admissions and financial aid on student performance. The low level of attention by associate of arts institutions to such studies (with the exception of exposure to different instructional and teaching methods) is vivid and an area for improvement, while the high level of reported activity in research universities, often criticized for their lack of attention to undergraduate education, is surprising. At present, institutions seem to be emphasizing reporting and profiling student performance —describing it—rather than studying what factors influence it. Reports aggregated on an institution-wide basis and by academic program or department are extensive (69.2% and 65.3% of all responding institutions, respectively) with little difference by institutional type or control. There is also considerable attention to reporting on special student populations or subgroups. Institutional differences would appear to reflect differences in the academic structure of the different institutional types and the greater pressure on public institutions to provide institutional reports.

4. External Influences on Student Assessment

This chapter examines the influence of external groups as perceived by institutional respondents on institutions' student assessment efforts, the second research question in this study. Five conceptual domains of external influence were identified in the literature review: national efforts; state-level initiatives; regional and professional accreditation associations; private sector; and professional associations. Of these, state and regional accreditation agencies are discussed as being most influential on institutions' student assessment efforts (Aper et al., 1990; El-Khawas, 1995; Ewell, 1993). Thus, questions regarding these two domains were emphasized in the survey. The role of federal agencies, private sector constituents, and professional associations in relation to student assessment was addressed to a lesser extent. In the following sections, we summarize the pattern of perceived external influences on student assessment for all responding institutions (research question two) and then examine variations in this pattern by institutional type and control (research question five).

4.1 Perceived State Role

Prior research has examined the role of state initiatives on student assessment in general terms, asking about the existence and influence of state requirements for student assessment (El-Khawas, 1990; Johnson et al., 1991). However, the literature proposes specific dimensions of such initiatives that may differentially shape institutional approaches to and support for student assessment (Aper & Hinkle, 1991; Ewell, 1987a, 1987b, 1990, 1991, 1994; Ewell et al., 1988). This survey examined institutional perceptions of state influences on student assessment in greater detail. The survey addressed five dimensions of state requirements for student assessment: development of state student assessment plans; influence of state requirements for student assessment; state reporting requirements for student assessment; state review of student assessment; and criteria used in the state review process for student assessment.

4.1.1 Development of State Assessment Plans

Institutions were asked to indicate whether their state's plan for student assessment was primarily developed: (a) by state-level officials or (b) through joint consultation between state officials and institutional representatives; or (c) that no state plan for student assessment existed. Institutional responses are displayed in Table 4.1.

A slightly larger proportion of responding institutions reported a state plan for student assessment existed (54.0%) than reported a state plan did not exist (46.0%). Plans were more likely to have been developed in consultation between state and institutional officials (38.5%) than by state officials alone (15.5%).

Development of State Assessment Plans by Institutional Type. Statistically significant differences in the development of state plans for student assessment were found across types of institutions. Of all institutional types, baccalaureate institutions least often reported the existence of a state plan, whether developed by state officials (5.1%) or jointly developed between the state and the institution (24.2%), and most often reported that no state assessment plan existed (70.7%). This reflects the fact that state plans typically do not apply to baccalaureate institutions, most of whom are private. The converse was true for associate of arts colleges which are predominantly public institutions. These institutions were the most likely to report that a state-developed (17.4%) or jointly developed (44.8%) plan existed and were correspondingly least likely to report that no state plan for student assessment existed (37.7%). Master's, doctoral and research institutions were each about as likely to report a state-developed plan (responses ranged from 11.7% to 16.4%). Compared to master's and doctoral institutions, research universities more often reported a jointly-developed state plan (41.7%) and least often reported that no state plan existed (46.7%).

Development of State Assessment Plans by Institutional Control. As would be expected, public institutions were significantly more likely than private institutions to report that a state-developed (17.2% versus 3.4%) or jointly-developed (43.1% versus 5.9%) state assessment plan existed, and were significantly less likely to report that no state plan existed (39.8% versus 90.7%)

Table 4.1 Development of and Influence of Requirements for State Assessment Plans by Institutional Type and Control

	Institutions (%) Reporting									
Development of State Assessment Plan	Institutional Type N=911							Institutional Control N=963		
State assessment plan or requirement was primarily developed:	All N=963	Associate of Arts N=493	Bacca-laureate N=99	Master's N=214	Doctoral N=45	Research N=60		Public N=845	Private N=118	
1. By state-level officials	15.5	17.4	5.1	16.4	15.6	11.7		17.2	3.4	
2. Through joint consultation between state officials and institutional representatives	38.5	44.8	24.2	32.2	28.9	41.7		43.1	5.9	
3. No statewide plan or requirement for student assessment exists	46.0	37.7	70.7	51.4	55.6	46.7		39.8	90.7	
	Chi-Square 45.36**							Chi-Square 101.12**		
Influence of State Assessment Plan	Institutional Type N=593							Institutional Control N=625		
State requirements for student assessment:	All N=625	Associate of Arts N=343	Bacca-laureate N=43	Master's N=83	Doctoral N=17	Research N=21	Chi-Square	Public N=588	Private N=37	Chi-Square
1. Were an important reason for institution initiating student assessment	45.1	48.4	30.2	40.7	43.3	43.2	6.49	47.3	10.8	18.70**
2. Have increased institution's involvement in student assessment	62.4	69.4	41.9	55.7	53.3	67.6	19.01**	65.0	21.6	27.87**
3. Have not been a factor in institution's student assessment activities	21.6	14.9	46.5	30.0	33.3	13.5	34.65**	18.4	73.0	61.29**
4. Have been a negative influence on institution's student assessment activities	4.0	3.5	–	6.4	3.3	8.1	5.47	4.3	–	1.64

[a] Only institutions receiving state funding responded to this question.

[b] Only institutions reporting the existence of a state requirement or plan for student assessment responded to this question.

* $p < .05$; ** $p < .01$

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Summary. Slightly more than half of respondent institutions had some form of state plan or requirements for assessment. Observed differences in the existence of state plans among types of institutions are largely attributable to differences in institutional control. The majority of institutions reporting a state plan for assessment perceived the plan to be the result of joint consultation between state and institutions.

4.1.2 Influence of State Assessment Plans

Institutions with a state plan for student assessment were subsequently asked about the influence these requirements had on their undergraduate student assessment activities. Institutions could select as many of the following impacts of state requirements as were applicable: (a) important reason for the institution to initiate student assessment, (b) increased institution's involvement in student assessment, (c) not a factor, and (d) negative influence on student assessment. Institutional responses to this question are displayed in Table 4.1.

Institutions with a state plan most often reported positive influences of state requirements on their student assessment activities. Close to half (45.1%) reported state requirements played an important role in initiating student assessment and almost two thirds (62.4%) indicated state requirements had increased institutional involvement in assessment. In comparison, only 21.6% of institutions reported state requirements had not been influential and 4.0% reported a negative influence.

Influence of State Assessment Plans by Institutional Type. Institutions differed significantly in their perceptions of the influence of state assessment requirements on their own student assessment activities. The predominantly public associate of arts (69.4%) and research institutions (67.6%) were most likely to report state requirements had increased institutional involvement in assessment and least likely to report there had been no influence on assessment activities (14.9% and 13.5%, respectively). Baccalaureate institutions, on the other hand, were least likely to attribute an increase in institutional assessment involvement to state requirements (41.9%) and most likely to report no influence from state requirements (46.5%). Master's and doctoral institutions' responses fell between these extremes. No significant differences among institutional types were found with respect to state requirements leading institutions to initiate or having a negative influence on student assessment activities.

Influence of State Assessment Plans by Institutional Control. Compared to private institutions, public institutions were significantly more likely to indicate state requirements had stimulated the initiation of assessment activities (47.3% versus 10.8%) or increased institutional involvement in assessment (65.0% versus 21.6%), and less likely to say state requirements had not influenced their assessment activities (18.4% versus 73.0%).

Summary. A large proportion of institutions perceived state assessment plans and requirements as having influenced the student assessment activities undertaken. Among types of institutions, baccalaureate institutions appear least affected; they were most likely to report not being influenced by these requirements. Conversely, associate of arts and, somewhat surprisingly, research institutions, were most likely to report being positively influenced by state assessment requirements. The existence and influence of state assessment plans is largely restricted to public institutions. This would account for differences in perceived state influence by institutional type.

4.1.3 State Reporting Requirements

The nature of institutions' state-level reporting requirements for student assessment are thought to influence the extent of institutional support for and use of student assessment (Ewell 1987b, 1990). Institutions that reported having state plans for student assessment were asked which of the following types of information they were required to report to state officials: (a) evidence of a student assessment plan, (b) measurement of state-mandated student performance indicators, (c) measurement of institutionally-developed student performance indicators, and (d) evidence of having used student assessment information. Table 4.2 presents the percentage of institutions reporting each type of reporting requirement.

The most common state reporting requirements were evidence of a student assessment plan (67.8%) and measurement of state-mandated student performance indicators (64.2%).

Table 4.2 State Reporting Requirements by Institutional Type and Control

	Institutions (%) Reporting[a]									
		Institutional Type N=532						Institutional Control N=562		
State reporting requirements for student assessment include	All N=562	Associate of Arts N=324	Baccalaureate N=34	Master's N=117	Doctoral N=24	Research N=33	Chi-Square	Public N=546	Private N=16	Chi-Square
1. Evidence that a student assessment plan is in place	67.8	69.4	88.2	63.2	66.7	57.6	9.62*	67.8	68.8	.01
2. Measurement of state-mandated student performance indicators	64.2	66.4	55.9	65.8	70.8	51.5	4.52	65.0	37.5	5.12*
3. Use of institutionally-devised student performance indicators	49.1	47.5	58.8	49.6	41.7	75.8	11.27*	49.5	37.5	.89
4. Evidence of institutional use of student assessment information	51.8	53.4	73.5	47.9	25.0	48.5	14.54**	52.0	43.8	.43

[a] Only institutions that receive state funding and reported the existence of a state requirement or plan for student assessment responded to this question.

* *p* < .05; ** *p* < .01

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Approximately half of respondents were required to report evidence of institutional use of student assessment information (51.8%) and use of institutionally-devised indicators (49.1%).

State Reporting Requirements by Institutional Type. Statistically significant differences in three of four state reporting requirements were found across types of institutions. In terms of providing evidence of a student assessment plan, baccalaureate institutions were most likely (88.2%) and research universities were least likely (57.6%) to have this reporting requirement. About two-thirds of associate of arts, master's and doctoral institutions had this requirement. Research institutions were most often required to report use of institutionally-devised indicators (75.8%); this was less often a requirement for other types of institutions, particularly doctoral institutions (41.7%). Baccalaureate institutions were significantly more likely than doctoral institutions to have to provide evidence of institutional use of student assessment information (73.5% versus 25.0%). Approximately half of the remaining institutional types reported this requirement. Institutions did not differ significantly in the likelihood of having to provide measurements of state-mandated student performance indicators. Responses here ranged from a high of 70.8% (doctoral institutions) to a low of 51.5% (research institutions).

State Reporting Requirements by Institutional Control. As would be expected, public institutions were significantly more likely than private institutions to be required to report measures of state-mandated student performance indicators (65.0% versus 37.5%). No other significant differences were observed when comparing reporting requirements by institutional control. This is partly a function of the small number of private institutions (N=16) included in this analysis.

Summary. Institutions are most often required to provide evidence of a student assessment plan but less often required to provide evidence of using information collected through assessment activities. If measures of student performance indicators are required, these are more likely to be state-mandated than institutionally-devised. Taken together, this profile of reporting requirements is not expected to contribute a great deal to institutional support for or use of student assessment. In general, baccalaureate institutions provide more types of student assessment evidence to state officials than do other types of institutions. Differences across institutional types are most pronounced with respect to reporting institutional use of assessment information. Although differences are evident with respect to other reporting requirements, no clear patterns emerge.

4.1.4 State Evaluation and Review Criteria for Student Assessment

States vary in terms of whether and how they evaluate institutions' student assessment plans or information (NCHEMS, 1996). The survey asked institutional respondents to report whether state officials had reviewed or evaluated institutions' student assessment plans or processes. Institutions that had undergone state review specified if the evaluation: (a) reviewed the institution's student assessment process; or compared the institution's student performance record (b) to its own past student performance, (c) to that of peer institutions, (d) to other institutions in the state, or (e) included other elements. Responses to these questions are presented in Table 4.3.

Slightly more than half (55.9%) of all institutions that reported a state plan for student assessment also indicated they had undergone a post hoc state review of their student assessment plan or process. This review was most often conducted by state officials (42.1%) and less often by institutional representatives (24.3%) or external reviewers (16.2%). State reviews most often included a review of the institution's student assessment process (67.2%). Comparisons of institutions' student performance records were less common. If utilized, these most frequently involved comparing institutions' student performance to their own past performance (44.4%), followed by comparisons with the student performance records of other institutions in the same state (38.2%) or with those of peer institutions (35.8%).

State Evaluation and Review Criteria by Institutional Type. Compared to other types of institutions, associate of arts colleges were significantly more likely to have had some form of state review of their student assessment plan or process (63%). There were no significant differences in the occurrence of reviews by state officials or institutional representatives across institutional types. Associate of arts and doctoral institutions were almost twice as likely as master's institutions to

Table 4.3 State Review of Student Assessment Plans or Process by Institutional Type and Control

Review of Student Assessment Plan or Process	Institutions (%) Reporting[a]									
		Institutional Type N=572						Institutional Control N=605		
After implementation, institution's student assessment plan or process:	All N=605	Associate of Arts N=335	Baccalaureate N=40	Master's N=131	Doctoral N=30	Research N=36	Chi-Square	Public N=574	Private N=31	Chi-Square
1. Was reviewed by state-level officials	42.1	46.0	45.0	35.9	30.0	44.4	6.07	44.1	6.5	17.08**
2. Was reviewed by external reviewers	16.2	20.3	7.5	11.5	20.0	8.3	10.24*	16.9	3.2	4.05*
3. Required an institutional self-review	24.3	27.8	22.5	16.8	16.7	16.7	8.37	25.1	9.7	3.80
4. Has not been reviewed	44.1	36.4	50.0	54.2	56.7	55.6	17.84**	41.6	90.3	28.27**
Criteria Used in State Review[b]		Institutional Type N=353						Institutional Control N=372		
State review of institution's student assessment plan or process included:	All N=372	Associate of Arts N=237	Baccalaureate N=21	Master's N=60	Doctoral N=14	Research N=21	Chi-Square	Public N=366	Private N=6	Chi-Square
1. Review of institution's student assessment process itself	67.2	48.4	76.2	70.0	64.3	66.7	.95	67.2	66.7	.01
2. Comparison of institution's student performance record with past performance	44.4	40.9	42.9	51.7	64.3	42.9	4.7	44.8	16.7	1.89
3. Comparison of institution's student performance record with peer institutions	35.8	37.6	14.3	35.0	35.7	33.3	4.62	36.3	–	3.39
4. Comparison of institution's student performance record with other institutions in same state	38.2	35.9	28.6	38.3	71.4	42.9	8.12	38.5	16.7	1.20
5. Other	9.9	10.1	23.8	6.7	–	9.5	6.8	9.0	66.7	21.9**

[a] Only institutions that receive state funding and reported the existence of a state requirement or plan for student assessment responded to this question

[b] Only institutions that reported a post hoc review of their student assessment plan or process responded to this question

* $p < .05$; ** $p < .01$

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have had an evaluation conducted by external reviewers (20.0% versus 11.5%). Baccalaureate and research institutions reported the least frequent use of external reviewers (7.5% and 8.3% respectively).

Although differences in reports of the elements or evaluative criteria employed in state reviews of institutions' student assessment plans or processes occurred across institutional types, none were statistically significant.

State Evaluation and Review Criteria by Institutional Control. Differences by institutional control suggest that private institutions were far less likely to have undergone a state-level review than public institutions (41.6% versus 90.3%). Public and private institutions differed with respect to having "other" criteria in the state review of their institution's student assessment plan. Private institutions were much more likely than public to have "other" state evaluation criteria (66.7% versus 9.0%). However, statistical comparisons on the basis of institutional control are influenced by the small number of private institutions who had undergone a state-level review (N=6).

Summary. Over half of institutions reporting a state initiative for student assessment also report that some form of state review of student assessment had been conducted. Because institutions reporting such reviews were primarily public (N=574) rather than private (N=31), the results reflect public institutions' experiences. Such reviews have most often been conducted by state officials and focused on the institutions' student assessment process rather than student performance reports. Associate of arts institutions are more often subject to state reviews than are more prestigious institutions. This approach to evaluation may be expected to produce less institutional support for and use of student assessment than one that employs institutional representatives or monitors the impact of student assessment on student performance.

4.2 Regional Accreditation Role

Past studies have revealed regional accreditation agencies to be an increasingly important influence on institutions' decisions to begin or expand student assessment activities (El-Khawas, 1990, 1992, 1995; Johnson et al., 1991; Muffo, 1992). Differences among regional accreditors on their student assessment-related policies and practices have been reported (Cole et al., 1997) but the influence of these differences at the institutional level have not been systematically examined. In order to extend current knowledge of this external domain, this study asked institutional respondents about three dimensions of regional accreditation requirements for student assessment: (a) whether the institution had experienced an accreditation review requiring student assessment; (b) the influence of regional accreditation requirements for student assessment on the institution; and (c) the institutional reporting requirements for student assessment required by the regional accreditation body. A fourth dimension, institutions' use of student assessment services provided by regional accreditation associations, will be discussed in section 4.3.2.

4.2.1 Regional Accreditation Review Experience

Institutions were asked whether they had undergone a regional accreditation review that required undergraduate student assessment. Table 4.4 displays institutional responses.

The majority of respondent institutions (80.3%) had completed a regional accreditation review requiring student assessment. There were no significant differences in the occurrence of a regional accreditation review requiring student assessment across institutional types. Nor was there a significant difference in the proportion of public and private institutions reporting the occurrence of a regional accreditation review requiring student assessment.

4.2.2 Institutional Influence of Regional Accreditation Requirements

Next, institutions were asked about the influence regional accreditation requirements had on their undergraduate student assessment activities. Institutions could select as many of the following impacts of regional accreditation requirements as were applicable: (a) important reason for the institution to initiate student assessment, (b) increased institution's involvement in student assessment, (c) not a factor, and (d) negative influence on student assessment. Institutional responses to this question are also displayed in Table 4.4.

Table 4.4 Regional Accreditation Review and Influence by Institutional Type and Control

	Institutions (%) Reporting									
		Institutional Type N=1304						Institutional Control N=1372		
Experience with regional accreditation review:	All N=1372	Associate of Arts N=539	Baccalaureate N=312	Master's N=311	Doctoral N=64	Research N=78	Chi-Square	Public N=870	Private N=502	Chi-Square
Institution has completed a regional accreditation review which required student assessment	80.3	79.6	81.4	82.3	82.8	73.1	4.05	80.8	79.5	.35

		Institutional Type N=1294						Institutional Control N=1359		
Regional accreditation requirements for student assessment:	All N=1359	Associate of Arts N=533	Baccalaureate N=308	Master's N=312	Doctoral N=63	Research N=78	Chi-Square	Public N=862	Private N=497	Chi-Square
1. Were an important reason for institution initiating student assessment	63.6	61.9	64.9	72.1	61.9	39.7	29.96**	61.4	67.4	4.96*
2. Have increased institution's involvement in student assessment	79.2	75.4	84.4	85.3	84.1	70.5	21.23**	76.5	84.1	11.23**
3. Have not been a factor in institution's student assessment activities	12.4	14.6	7.5	8.0	11.1	24.4	25.92**	14.5	8.9	9.24**
4. Have been a negative influence on institution's student assessment activities	.9	.8	.3	1.9	–	1.3	5.46	1.0	.6	.70

* $p < .05$; ** $p < .01$

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Institutions generally perceived these requirements as having had a positive influence on their student assessment activities. Almost four-fifths (79.2%) reported regional accreditation requirements had increased institutional involvement in student assessment and almost two thirds (63.6%) reported regional accreditation requirements had been a major reason for initiating student assessment efforts. Only 12.4% felt these accreditation requirements had not influenced their assessment activities and less than 1% reported negative consequences.

Institutional Influence of Regional Accreditation Requirements by Institutional Type. There were statistically significant differences in the influences of regional accreditation requirements reported by various types of institutions. Master's institutions most often reported that regional accreditation requirements had influenced them to initiate student assessment activities (72.1%), followed closely by baccalaureate (64.9%), associate of arts and doctoral (both 61.9%) institutions. Baccalaureate, master's and doctoral institutions were most likely to identify regional accreditation requirements as having increased institutional involvement in assessment (84.1% to 85.3%) and least likely to perceive these requirements as having been a source of negative influence (8.0% to 11.1%). In comparison, associate of arts colleges were slightly less likely to report that institutional involvement in assessment had increased as a result of accreditation requirements (75.4%) and slightly more likely to report no influence from these requirements (14.6%). Research institutions were most distinctive in their responses. Only 39.7% reported regional accreditation requirements as an important reason for initiating student assessment, 70.5% felt these requirements had increased institutional involvement in assessment, and almost one-quarter (24.4%) viewed them as having had no influence.

Institutional Influence of Regional Accreditation Requirements by Institutional Control. Private institutions were significantly more likely than public institutions to report that regional accreditation requirements had contributed to the initiation of student assessment activities (67.4% versus 61.4%) and had increased institutional involvement in assessment (84.1% versus 76.5%) and significantly less likely to perceive regional accreditation requirements as having had no influence on student assessment (8.9% versus 14.5%).

Summary. Overall, regional accreditation requirements function as an important source of external influence on institutions' student assessment activities. The influence of this domain exceeds that attributed to state requirements. Regional accreditation requirements are more often viewed as having been a positive influence and less often reported as having been a negative influence than are state requirements (see section 4.1.2). Baccalaureate, master's and doctoral institutions report the most positive consequences while research institutions appear to be comparatively less affected by these requirements. The likelihood of experiencing positive effects on student assessment efforts from regional accreditation requirements is also greater in private than in public institutions.

4.2.3 Regional Accrediting Reporting Requirements

Institutions were asked which of the following types of student assessment information they were required to report to their regional accreditation agency: (a) evidence of a student assessment plan, (b) intended institutional uses of student assessment information, (c) results of student assessment, and (d) evidence of having used student assessment information. Institutions could indicate if they were unfamiliar with regional accreditation reporting requirements. Table 4.5 presents the percentage of institutions reporting each type of reporting requirement.

In terms of reporting requirements, institutions overall most often reported that they were required to provide evidence of having a student assessment plan or process in place (90.2%), followed by actual (77.4%) and intended (72.7%) institutional use of student assessment information, and results of student assessment (66.1%). Very few (4.6%) institutions reported being unfamiliar with regional accreditation reporting requirements.

Regional Accreditation Reporting Requirements by Institutional Type. Compared to all other types of institutions, research institutions were significant less likely to have to provide evidence of a student assessment plan (76.3%) or intended institutional uses of student assessment information (59.2%) to regional accreditors. Associate of arts, baccalaureate, master's and

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Table 4.5 Regional Accreditation Reporting Requirements by Institutional Type and Control

	Institutions (%) Reporting									
		Institutional Type N=1287						Institutional Control N=1352		
Regional accreditation reporting requirements for student assessment include:	All N=1352	Associate of Arts N=528	Baccalaureate N=308	Master's N=310	Doctoral N=65	Research N=76	Chi-Square	Public N=857	Private N=495	Chi-Square
1. Evidence that a student assessment plan is in place	90.2	89.2	91.9	94.2	90.8	76.3	24.09**	89.3	91.7	2.13
2. Intended institutional uses of student assessment information	72.7	72.2	74.7	75.5	78.5	59.2	9.93*	72.0	73.9	.60
3. Results of student assessment	66.1	66.3	66.2	69.4	64.6	56.6	4.59	66.0	66.3	.01
4. Evidence of actual institutional use of student assessment information	77.4	78.4	79.2	80.0	70.8	68.4	7.09	77.0	78.2	.25
5. Unfamiliar with regional accreditation requirements for student assessment	4.6	4.4	3.6	3.5	3.1	13.2	15.07**	7.0	2.7	1.61

* $p < .05$; ** $p < .01$

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doctoral institutions were much more likely to indicate having these reporting requirements (89.2% to 94.2% reporting having a plan and 72.2% to 78.5% reporting intended uses). A similar pattern of institutional differences existed for the requirements of reporting student assessment results and evidence of institutional use of student assessment information although these were not statistically significant. Finally, research institutions were more likely (13.2%) than all other institutional types (3.1% to 4.4%) to report being unfamiliar with regional accreditation requirements for student assessment.

Regional Accreditation Reporting Requirements by Institutional Control. There were no significant differences in the nature of regional accreditation reporting required of public and private institutions. This seems to indicate that regional accrediting agencies apply their requirements uniformly across the public and private sectors.

Summary. Like state reporting requirements, regional accreditation associations most often require institutions to provide evidence of having a student assessment plan and least often require evidence of student assessment results. However, regional accreditors more often ask for evidence of institutions' intended and actual uses of student assessment information. This pattern of reporting requirements may be more conducive to building institutional support for and use of student assessment than the more mandatory approaches employed by states. With the exception of research institutions, there is little variation in the nature of reporting requirements across institutional types. Research institutions appear to have fewer reporting requirements from regional accreditors. This may be partly a function of their greater unfamiliarity with accreditors' reporting requirements. Regional accreditation reporting requirements do not differ between public and private institutions.

4.3 External Sources of Support

In addition to posing requirements for the conduct of student assessment activities, external constituents may influence institutions' engagement in student assessment by providing funding (Banta & Associates, 1993) or services (Banta, 1991; Mentkowski, 1991) intended to support these efforts. Patterns of institutional use and impacts of various forms of external support have not been systematically examined. To that end, the survey addressed two further dimensions: institutional use of external grants and of external services for improving their student assessment efforts.

4.3.1 Receipt of External Grants for Student Assessment

Institutions were asked if they had received grants to improve their student assessment practices from any of the following external sources: FIPSE, other federal agencies, state incentive programs, private foundations or corporate sources, or no external grants received. Institutional responses are presented in Table 4.6.

Overall, most (79.0%) institutions have not received external grants for improving student assessment practices. There was little variation in the receipt of grants from the various external sources; the proportion of institutions reporting receipt of grants from any external source listed ranged between 5.9% and 7.0%.

Receipt of External Grants for Student Assessment by Institutional Type. There were statistically significant differences in the receipt of external grants from specific sources by institutional type. Associate of arts colleges were the least likely type of institution to have received grants for student assessment from FIPSE (2.2%) and from private foundations or corporate sources (1.8%) but were the most likely to have received grants from other federal agencies (10.4%) (e.g., Carl Perkins or Title III). Compared to other institutional types, a moderate proportion of two-year colleges had received grants from state-level sources (7.9%).

Baccalaureate institutions were least likely to have received grants from state sources (3.4%) and most likely to have received grants from private or corporate sources (11.0%). Their receipt of FIPSE (7.6%) or other federal source grants (4.8%) was in the moderate range.

Master's and research institutions had very similar patterns of external grant receipt. For both, a comparatively high proportion of institutions had received grants from FIPSE (9.0% and 9.7%) and from state sources (10.0% and 9.7%), but they were least likely among the institutional types to have received grants from other federal agencies (4.8% and 2.8%). Research universities were most likely to have received grants from foundations or corporate sources (12.5%).

Table 4.6 Receipt of External Grants for Student Assessment by Institutional Type and Control

	Institutions (%) Reporting									
		Institutional Type N=1220						Institutional Control N=1283		
Received grant to improve student assessment practices from:	All N=1283	Associate of Arts N=508	Baccalaureate N=291	Master's N=290	Doctoral N=59	Research N=72	Chi-Square	Public N=825	Private N=458	Chi-Square
1. FIPSE	5.9	2.2	7.6	9.0	10.2	9.7	22.94**	5.3	7.0	1.45
2. Other federal agencies	6.6	10.4	4.8	2.8	8.5	2.8	22.20**	8.0	4.1	7.06**
3. State incentive program	7.0	7.9	3.4	10.0	3.4	9.7	11.86*	10.3	1.1	38.31**
4. Private foundations or corporate sources	5.8	1.8	11.0	5.5	8.5	12.5	36.09**	3.4	10.0	23.96**
5. No external grants received	79.0	80.5	79.0	77.2	76.3	72.2	3.39	77.3	81.9	3.66

* $p < .05$; ** $p < .01$

Doctoral universities were most likely to have received a FIPSE grant (10.2%), followed by grants from other federal agencies (8.5%) and foundations or corporate sources (8.5%). They were least likely to have received grants from state sources (3.4%).

Receipt of External Grants for Student Assessment by Institutional Control. As would be expected, public institutions were more likely than private institutions to have received a student assessment grant from state sources (10.3% versus 1.1%). They were also more likely to have received grants from other federal agencies (8.0% versus 4.1%). A larger proportion of private than public institutions reported the receipt of grants from foundations or corporate sources (10.3% versus 3.4%).

Summary. Whether due to unavailability, ineligibility, or lack of awareness, very few institutions have received external grants for student assessment. Institutional types differ in their receipt of grants from specific external sources. Associate of arts colleges make greatest use of non-FIPSE federal funds (such as Carl Perkins or Title III grants) and state-provided grants; baccalaureate, doctoral and research institutions make greatest use of FIPSE and foundation or corporate grants; and master's institutions have most often received student assessment grants from FIPSE or state sources. As would be expected, public institutions are more likely to receive federal or state grants while private institutions most often receive student assessment grants from private foundations or corporate sources.

4.3.2 Use of External Resources for Student Assessment

A variety of postsecondary organizations — professional associations (Banta, 1991; Mentkowski, 1991), regional accreditation associations (Cole et al., 1997), state-level agencies (Boyer, Ewell, Finney, & Mingle, 1987; Ewell, 1987c), and consortia of institutions (Astin & Ayala, 1987) — provide a range of services intended to support institutions' student assessment efforts. These services include consultation, assessment conferences, training workshops, and publications or research reports on student assessment. For each type of postsecondary organization, the survey asked institutions which, if any, of these student assessment services they had used. Institutional responses are presented in Table 4.7.

Institutions reported using some types of student assessment services more often than others. Institutions most often reported using assessment conferences. Two-thirds (66.5%) of institutions had used an assessment conference provided by one or more of the postsecondary institutions considered. Assessment publications or research reports were the next most frequently used service, with 59.8% of institutions using this form of service from one or more of the provider organizations listed. A somewhat smaller proportion (51.8%) had used training workshops from one or more providers while consultation services from one or more providers were least likely to have been used (32.9%).

Patterns of institutional usage emerged by the type of postsecondary organization providing student assessment services. Professional associations and regional accreditation associations were the most frequently reported source of student assessment services. Close to two-thirds of institutions reported using one or more types of services from professional associations (62.1%) and from regional accrediting associations (60.7%). Only a third of institutions reported using assessment services provided by institutional consortia (34.1%) or state-level agencies (33.4%).

Summary. Professional associations and regional accreditation associations play a comparatively prominent role in supporting institutions' student assessment efforts. Institutions are most likely to use assessment conferences and publications or research reports, less likely to use training workshops, and least likely to use consultation services. These patterns of usage may reflect institutional preference or service availability.

Table 4.7 Use of External Resources for Student Assessment by Type of Provider

	Institutions (%) Reporting Use					
	Type of Student Assessment Service					
Type of postsecondary organization providing service	Services not used or not available	Consultation services	Assessment conferences	Training workshops	Publications or research reports	% institutions using services from this provider
Professional associations	29.4	13.3	50.7	32.0	51.4	62.1
Regional accrediting association	29.8	18.7	40.9	31.9	45.0	60.7
State-level agency	53.5	13.6	26.4	22.3	22.3	33.4
Consortium of institutions	53.1	12.5	30.2	17.9	20.2	34.1
% institutions using each type of service	26.3	32.9	66.5	51.8	59.8	

5. Organizational and Administrative Support for Student Assessment

The third research question addressed in this study examines the organizational and administrative support patterns that institutions have developed to promote student assessment on campus. The conceptual framework for the study identified five domains of organizational and administrative support for student assessment: the institutional support strategy, leadership and governance patterns, assessment management policies and practices, the institutional culture and climate for assessment, and the evaluation patterns for student assessment. Institutional culture and climate for student assessment were not addressed in this survey. This domain will be studied in the next phase of our research program. Given the emphasis on assessment management policies and practices in the literature, we discuss this domain separately in the next chapter of this report. In the sections that follow, the respondents' institutional support patterns in the remaining three domains of organizational and administrative support — institutional support strategy, leadership and governance patterns, and evaluation of the student assessment process — will be examined. We will first examine responses for all institutions (research question number three) and then examine variations by institutional type and control (research question five).

5.1 Institutional Support Strategy for Student Assessment

The questionnaire addressed three dimensions of institution-wide support patterns for student assessment: the mission emphasis on, the intended institutional purposes for, and the administrative and governance activities that promote student assessment.

5.1.1 Mission Emphasis on Student Assessment

Institutions were asked to identify whether their institution's mission statement explicitly: a) emphasizes excellence in undergraduate education, b) identifies intended student outcomes, c) refers to student assessment as an important priority, or d) does not mention any of these. They could respond "yes" to more than one. Table 5.1 displays the institutional responses to this question.

Table 5.1 Institutional Mission Emphasis by Institutional Type and Control

	Institutional Mission Statement Emphases (% in Institutions)									
		Institutional Type N=1309						Institutional Control N=1376		
Institutional Mission Statement Explicitly	All N=1376	Assoc of Arts N=539	Baccalaureate N=315	Master's N=313	Doctoral N=64	Research N=78	Chi-Square	Public N=873	Private N=503	Chi Squa
1. Emphasizes excellence in undergraduate education	81.9	75.3	87.6	88.8	87.5	84.6	35.2**	78.9	87.1	14.3
2. Identifies intended educational outcomes for students	52.0	49.7	61.0	53.4	42.2	33.3	24.8**	46.6	61.4	28.0
3. Refers to student assessment as important institutional activity	19.3	21.3	15.6	21.7	20.3	9.0	10.9*	22.5	13.7	15.7
4. Does not explicitly mention any of above emphases	10.8	14.1	6.7	7.0	9.4	12.8	17.1**	12.9	7.0	11.9

* $p < .05$; ** $p < .01$

Most responding institutions indicated their mission statement emphasizes excellence in undergraduate education (81.9%). While over half reported that their mission statement identifies intended student outcomes (52.0%), less than 20% reported that their mission statement refers to the importance of student assessment (19.3%). Only 10.8% of the institutions did not have one of these aspects in their mission statement.

Mission Emphasis By Institutional Type. Table 5.1 confirms that differing types of institutions differed statistically in their mission emphases on student assessment. While all institutional types reported a high level of mission emphasis on excellence in undergraduate education, associate of arts institutions rather surprisingly were lower than the four year institutions (75.3% compared to 85% and above). Baccalaureate institutions were most likely to have mission statements identifying intended student outcomes (61.0%), while research institutions were least likely to have such statements (33.3%). The importance of student assessment was stressed most in the mission statements of associate of arts, master's and doctoral institutions (20.3% to 21.7%) and least in research universities (9.0%).

Mission Emphasis by Institutional Control. Table 5.1 shows that public and private institutions differed significantly on the three mission statement components. Private institutions were more likely to emphasize excellence in undergraduate education (87.1% vs. 78.9%) and to identify intended outcomes (61.4% vs. 46.6%) while public institutions were more likely to identify student assessment as an important activity (22.5% vs. 13.7%).

Summary. Clearly, most institutions emphasize excellence in undergraduate education in their mission statements regardless of type or control. The major difference in mission statement emphases both by institutional type and control was the likelihood of institutions identifying explicit student outcomes. Baccalaureate and master's institutions were more likely to be explicit about intended outcomes than the other institutional types, while research institutions were least likely to do so. Private institutions did so more than public institutions although publics acknowledged the importance of student assessment as an activity to a higher degree.

5.1.2 Purposes of Student Assessment

Six statements regarding institutional purposes for student assessment were identified in the literature. Respondents indicated the importance of each of these six purposes for their institutions (1= none, 2 = minor, 3 = moderate, and 4 = very). Table 5.2 presents the mean scores of the respondents on these six purposes.

Three purposes for student assessment were identified by all institutions as most important: preparing an institutional self-study for accreditation (3.86), improving the achievement of undergraduate students (3.48), and guiding undergraduate program improvement (3.43). Considerably lower, but still of minor to moderate importance, were improving faculty instructional performance (3.02), meeting state reporting requirements (2.89), and—lowest—guiding internal resource allocation (2.71).

Purposes of Student Assessment by Institutional Type. As indicated in Table 5.2, there were statistically significant differences among the institutional types on all six purposes for student assessment. Despite the more limited student assessment activity noted in previous sections, associate of arts institutions held three of the six purposes of higher importance than did the other institutional types: improving the achievement of undergraduate students (3.50), meeting

Table 5.2 Purpose of Student Assessment by Institutional Type and Control

	Importance of Institutional Purpose[a]									
		Institutional Type N=1311						Institutional Control N=1379		
Institutional Purpose of Student Assessment	All N=1379	Associate of Arts N=544	Bacca-laureate N=312	Master's N=312	Doctoral N=65	Research N=78	F	Public N=875	Private N=504	*t*
1. Preparing institutional self-study for accreditation	3.86 (.65)	3.61 (.66)	3.63 (.63)	3.67 (.55)	3.69 (.58)	3.14 (.92)	11.3**	3.59 (.67)	3.64 (.63)	-1.3
2. Meeting state reporting requirements	2.89 (1.18)	3.37 (.90)	2.30 (1.21)	2.76 (1.17)	2.60 (1.26)	2.41 (1.27)	54.7**	3.29 (.95)	2.17 (1.19)	17.9**
3. Guiding internal resource allocation decisions	2.71 (.91)	2.83 (.89)	2.62 (.92)	2.62 (.86)	2.51 (.90)	2.40 (.89)	6.96**	2.74 (.89)	2.66 (.93)	1.55
4. Guiding undergraduate academic program improvement	3.43 (.72)	3.38 (.75)	3.51 (.70)	3.46 (.67)	3.28 (.74)	3.29 (.75)	3.25*	3.38 (.73)	3.51 (.68)	-3.26**
5. Improving the achievement of undergraduate students	3.48 (.71)	3.50 (.70)	3.47 (.73)	3.50 (.65)	3.40 (.77)	3.17 (.80)	3.97**	3.45 (.72)	3.53 (.69)	-2.05*
6. Improving faculty instructional performance	3.02 (.82)	3.06 (.90)	3.08 (.88)	2.95 (.87)	2.82 (.93)	2.62 (.92)	5.53**	2.98 (.92)	3.10 (.85)	-2.45*

[a] 1=no importance; 2=minor importance; 3=moderate importance; 4=very important

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control werecompared using *t* test for independent samples.

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state reporting requirements (3.37), and guiding internal resource allocation (2.83). They were also among the highest on preparing for institutional self-study for accreditation (3.61). It would appear that associate of arts institutions see student assessment as critically important to all areas of management—external reporting, resource allocation, and student and faculty improvement.

Baccalaureate institutions, like other institutions, saw student assessment as very important in preparing an institutional self-study for accreditation (3.63). They also rated the following purposes higher than the other institutional types: guiding undergraduate academic program improvement (3.51), and improving faculty instructional performance (3.08). Not surprisingly, as many of these institutions are private, they saw the purpose of meeting state reporting requirements (2.30) as unimportant compared to the other types of institutions.

Master's and doctoral institutions had similar views on the purposes of assessment. As with other institutional types, both saw preparing an institutional self study for accreditation (3.67 and 3.69), improving the achievement of undergraduate students (3.50 and 3.40), and guiding undergraduate academic program improvement (3.46 and 3.28) as very important. Both types were low—although not lowest—on meeting state performance requirements (2.76 and 2.60) and guiding internal resource allocation (2.62 and 2.51). These two institutional types seem to see student assessment as serving an internal improvement agenda rather than serving political or management purposes.

Research universities, although they rated preparing an institutional self-study for accreditation (3.14), guiding undergraduate academic program improvement (3.29), and improving undergraduate student performance (3.17) as important, still ranked five of six purposes for student assessment lowest among the institutional types in the importance they ascribed to them. Their rating of meeting state reporting requirements (2.41) was almost as low as it was for baccalaureate institutions.

Purposes of Student Assessment by Control. Public and private institutions differed statistically on four of the six purposes of student assessment. They did not differ on preparing an institutional self-study for accreditation (both rated it high—above 3.5) and guiding internal resource allocation (both rated it low—below 2.75). However, public institutions were much more concerned about using student assessment to meet state reporting requirements (3.29). The privates were more concerned with purposes directed at improvement of undergraduate academic programs (3.51), undergraduate student achievement (3.53), and faculty instruction (3.10).

Summary. Clearly, preparing for accreditation and improving both undergraduate student performance and undergraduate academic programs stand out as important purposes for student assessment, while accountability in the form of state reporting requirements and guiding internal resource allocation are much lower. Among the institutional types, associate of arts institutions see student assessment as important for all purposes. Baccalaureate institutions do also—with the exception of meeting state reporting requirements. Public institutions place more emphasis on student assessment as an accountability device to meet state reporting requirements while privates emphasize its role in improvement.

5.2 Leadership and Governance for Student Assessment

The survey instrument addressed a series of issues related to institutional governance and leadership patterns supporting student assessment. Specifically, it focused on institution-wide administrative and governance activities, support for student assessment by various groups, and the structure and process of institutional planning and policy setting. These areas and the institutional differences are discussed next.

5.2.1 Administrative and Governance Activities Promoting Student Assessment

Institutions have developed or instituted a variety of administrative and governance structures and activities designed to promote student assessment on an institution-wide basis. Table 5.3 lists seven such structures or activities and whether respondents have introduced these structures or activities in their institutions.

The two most frequently reported structures/activities were a faculty governance committee that addresses student assessment issues (57.8%) and student assessment workshops for academic

Table 5.3 Engagement in Administrative and Governance Activities Promoting Student Assessment by Institutional Type and Control

	Institutions (%) Engaging in Activities									
		Institutional Type N=1044						Institutional Control N=1097		
Administrative and Governance Activities That Promote Student Assessment	All N=1097	Assoc of Arts N=428	Baccalaureate N=254	Master's N=261	Doctoral N=50	Research N=51	Chi-Square	Public N=701	Private N=396	Chi-Square
1. Annual presidential or institution-wide student assessment initiatives or forums	41.3	48.1	32.7	41.0	34.0	27.5	21.2**	44.4	35.9	7.6**
2. Rewards or incentives for academic and student affairs administrators who promote unit use of assessment	6.4	3.7	5.9	7.3	18.0	17.6	27.0**	5.7	7.6	1.5
3. Incentives for academic units to use assessment information in evaluation and improvement efforts	26.6	23.6	25.2	30.7	38.0	29.4	7.9	29.0	22.5	5.4*
4. Assessment workshops for academic and student affairs administrators	56.4	56.5	48.8	61.3	52.0	66.7	11.0*	57.5	54.5	.9
5. Board of trustees committee that addresses assessment	12.8	10.3	13.8	16.9	10.0	9.8	7.3	12.3	13.6	.4
6. Faculty governance committee that addresses assessment issues	57.8	49.5	68.9	63.6	54.0	37.3	37.4**	52.1	67.9	26.1**
7. Student representation on assessment committees	33.4	28.0	37.4	41.0	36.0	27.5	14.9**	32.5	34.8	.6

* $p < .05$; ** $p < .01$

and student affairs administrators (56.4%). (A similar question on workshops for faculty is discussed in section 6.5.). Presidential or institution-wide initiatives, forums, or seminars on student assessment were conducted by 41.3% of the responding institutions. Incentives to use student assessment information were less frequently mentioned; 26.6% rewarded academic units that use assessment information in their improvement efforts and 6.4% provided incentives for academic or student affairs administrators to promote assessment. Finally, Board of Trustees' committees on student assessment were not common (12.8%).

Administrative and Governance Activities by Institutional Type. Institutional types differed in their use of these institution-wide efforts on five of the seven activities. Associate of arts institutions, compared to other institutional types, were most likely to use presidential or institution-wide activities (48.1%). Additionally, the use of student assessment workshops for academic and student affairs administrators (56.5%) and faculty governance committees (49.5%) were mentioned quite often. They were least likely among the institutional types to use incentives or rewards for administrators to promote student assessment (3.7%).

Baccalaureate institutions were most likely to use faculty governance committees (68.9%) and least likely to use workshops for academic and student affairs administrators. They were neither highest nor lowest on the other activities. Compared to the other institutions, baccalaureate institutions apparently focus their efforts on the faculty.

Master's institutions were neither highest nor lowest in using any of the activities on which institutional types differ statistically. However, it is worth noting that they were most likely to have student representation on student assessment committees (41.0%).

Doctoral institutions relied more than other types of institutions on using rewards and incentives for academic and student affairs administrators to promote student assessment (18%). Although not at a statistically significant difference, they also reported most frequently the use of incentives for academic units (38.0%). This willingness to use incentives seems to be a distinctive characteristic of these mostly large institutions.

Compared to other types of institutions, research universities made the highest use of assessment workshops for academic and student affairs' administrators (66.7%). Like the doctoral institutions, they were more likely than other institutions to use incentives for academic and student affairs administrators (17.6%). They were less likely than the other institutional types to use presidential or institution-wide initiatives and events (27.5%) and to have student representatives on committees (27.5%).

Administrative and Governance Activities by Control. When contrasting public and private institutions, there were only statistically significant differences on three of the seven activities.

Public institutions reported greater use of presidential or institution-wide initiatives and events (44.4%) and incentives for academic units to use student assessment (29.0%). Private institutions made greater use of faculty governance committees on student assessment.

Summary. Overall, institutions engage in the use of faculty governance committees on student assessment and workshops on the topic for academic and student affairs administrators most, and are least likely either to use incentives for administrators or to have board of trustee committees focused on student assessment. Institutional comparisons demonstrate that associate of arts institutions place a heavier reliance on presidential or institution-wide efforts, baccalaureate institutions rely more on faculty governance committees on student assessment, and the larger master's, doctoral and research institutions are more likely to rely on incentives to promote the use of student assessment information by academic programs and/or among academic and student affairs administrators.

5.2.2 Constituent Support for Student Assessment

While all constituents in an institution are potentially affected by student assessment, the degree to which institutional efforts are supported is often cited as a critical issue. Respondents were asked how supportive six different constituents are of undergraduate student assessment activities (Scale: 1 = very unsupportive to 5 = very supportive). The responses are summarized in Table 5.4.

Among all respondents, academic affairs administrators were identified as the most supportive of any constituent group (4.64), followed by the chief executive officer (4.41), and student affairs administrators (4.33). Boards of trustees (3.84), faculty governance (3.80), and students (3.33) were lower but all were perceived as somewhat supportive.

Constituent Support by Institutional Type. While there were significant statistical differences among the institutional types for four of the six constituencies, it is useful to note that the rank ordering of them on their degree of supportiveness was virtually the same for all institutional types - from academic affairs administrators at the top, followed by chief executive

Table 5.4 Constituent Support for Student Assessment by Institutional Type and Control

	Extent to Which Group Supports Student Assessment[a]									
		Institutional Type N=1304						Institutional Control N=1370		
Internal Constituent Group	All N=1370	Associate of Arts N=538	Baccalaureate N=313	Master's N=311	Doctoral N=65	Research N=77	F	Public N=870	Private N=500	*t*
1. Board of trustees	3.84 (.93)	3.87 (.95)	3.79 (.94)	3.90 (.90)	3.68 (.91)	3.67 (.86)	1.66	3.87 (.93)	3.81 (.93)	1.12
2. Chief executive officer	4.41 (.84)	4.47 (.84)	4.39 (.91)	4.42 (.78)	4.30 (.87)	4.16 (.77)	2.78*	4.44 (.82)	4.38 (.87)	1.34
3. Academic affairs administrators	4.64 (.69)	4.64 (.71)	4.69 (.71)	4.68 (.60)	4.53 (.76)	4.35 (.66)	4.41**	4.62 (.68)	4.67 (.70)	-1.18
4. Student affairs administrators	4.33 (.83)	4.38 (.87)	4.33 (.85)	4.27 (.78)	4.30 (.87)	4.29 (.76)	.88	4.35 (.83)	4.33 (.84)	.46
5. Faculty governance	3.80 (.93)	3.87 (.94)	3.83 (.90)	3.77 (.92)	3.58 (.98)	3.45 (.85)	4.49**	3.77 (.94)	3.90 (.89)	-2.47*
6. Students	3.33 (.74)	3.40 (.76)	3.33 (.80)	3.24 (.67)	3.27 (.74)	3.22 (.63)	2.92*	3.35 (.74)	3.33 (.78)	.47

[a] 1=very unsupportive; 2=somewhat unsupportive; 3=neutral, unknown; 4=somewhat supportive; 5=very supportive

* $p < .05$; ** $p < .01$

Note: Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples.

officers, student affairs administrators, the board, the faculty and students. Comparing by institutional type, associate of arts institutions rated the support of their chief executive officers (4.48), their faculty governance (3.87), and students (3.40) higher than did other institutional types. Baccalaureate institutions saw the academic affairs administrators (4.69) as more supportive of student assessment than other institutions did. Master's institutions, like the baccalaureate institutions, rated academic affairs administrators as more supportive than did other institutional types. Doctoral institutions did not see any of the constituents as most or least supportive compared to other institutions. Finally, research universities, perhaps reflecting their complexity, saw all four of the constituent groups—which differed statistically—as the least supportive compared to the other institutional types. All four constituent groups, however, were still rated as somewhat supportive: academic affairs administrators (4.35), chief executive officers (4.16), faculty governance (3.45), and students (3.22).

Constituent Support by Institutional Control. There were no significant differences between public and private institutions in terms of constituent support for student assessment, except for a .05 level difference on faculty governance. Private institutions described faculty governance (3.90) as more supportive than did public institutions.

Summary. While all constituent groups are seen as supportive, academic affairs administrators are consistently seen as most supportive (perhaps a bias since the survey was mailed to them!). More importantly, despite a few statistical differences in constituent supportiveness by institutional type and control, the rank ordering of the constituents' supportiveness remains essentially the same for all institutional groupings. Only in research universities are all constituents seen as less supportive (but still positive) than in other types of institutions.

5.2.3 Institutional Plan or Policy for Student Assessment

A set of questions addressed how institutions provide guidance or formal leadership for student assessment efforts. An initial question asked whether institutions had one of seven types of institutional plans or overall policies for student assessment. Those are:

> *Formal Centralization*: A formally adopted plan or policy specifying undergraduate student assessment activities for all academic programs or units.
>
> *Formal Limited Centralization:* A formally adopted plan or policy for undergraduate student assessment in some academic programs or units.
>
> *Formal Decentralization:* A formally adopted institutional plan or policy requiring all academic units or programs to develop their own undergraduate student assessment plan.
>
> *Formal Guidance*: A formally adopted institutional plan or policy identifying institution-wide activities to be conducted by a central committee or office.
>
> *Informal:* No institutional plan or policy but academic units or programs are encouraged to develop their own undergraduate student assessment activities.
>
> *Emergent:* Currently developing a plan or policy for undergraduate student assessment.
>
> *None*: Do not have an undergraduate student assessment plan or policy.

Table 5.5 displays the institutional responses to this question about the status of their institutional plan or policy for student assessment.

Table 5.5 Institutions with Plan or Policy for Student Assessment by Institutional Type and Control

Institutional Plan or Policy for Student Assessment	All N=1381	Institutional Type N=1312						Institutional Control N=1381		
		Assoc of Arts N=543	Baccalaureate N=314	Master's N=311	Doctoral N=65	Research N=79	Chi-Square	Public N=876	Private N=505	Chi-Square
1. Formal centralization: a plan or policy requiring specified undergraduate student assessment activities of all academic units or programs	50.0	53.8	54.8	46.6	36.9	27.8	27.33**	50.9	48.3	.86
2. Formal limited centralization: a plan or policy for undergraduate student assessment in some academic units or program areas	18.7	19.5	14.3	20.9	21.5	15.2	6.17	18.7	18.6	.01
3. Formal decentralization: a plan or policy requiring all academic units or programs to develop their own undergraduate student assessment plan	39.2	23.9	46.2	58.5	56.9	41.8	115.48**	35.6	45.5	13.24**
4. Formal guidance: a plan or policy stipulating institution-wide activities to be conducted by central committee or office	38.2	37.8	39.8	39.9	43.1	29.1	4.12	38.0	38.6	.05
5. Informal: no plan or policy but academic units or programs are encouraged to conduct their own undergraduate student assessment activities	13.0	10.1	14.3	14.8	7.7	25.3	17.51**	12.1	14.5	1.58
6. Emergent: currently developing a plan or policy for undergraduate student assessment	16.6	14.0	16.9	21.2	12.3	12.7	9.27	15.0	19.4	4.59*
7. None: does not have an undergraduate student assessment plan or policy	4.1	4.4	2.2	1.9	1.5	19.0	53.01**	4.6	3.4	1.17

[a] Institutions could select more than one type of plan or policy

* $p < .05$; ** $p < .01$

Given the complexities of institutional plans, respondents were allowed to check more than one type of plan (e.g. an institution could report the usage of both a formal guidance and a limited centralization approach). From Table 5.5, it is clear that over 65% of the institutions had some type of formal institutional plan or policy for student assessment and 13.0% relied on informal planning. Only 4.1% had no plan or policy and 16.6% have an emergent plan. The most common approach among all respondents was a formal centralized plan or policy (50.0%) followed by institutions that have a formal decentralized (39.2%) or a formal guidance approach (38.2%). Fewer institutions reported using a formal limited centralization plan (18.7%).

Plan or Policy by Institutional Type. Comparing institutional types, there were statistical differences among institutional types on four of the seven types of institutional plans. One notes immediately that research universities were by far the most likely to report having no plan (19.0%) compared to other types of institutions.

In areas where institutions differed significantly on the nature of their institutional plan or policy, associate of arts institutions were one of the two most likely to have a formal centralized plan (53.8%) and least likely to have a formal decentralized one (23.9%). This finding is consistent with the more centralized and managerial nature of many community college patterns of organization.

Baccalaureate institutions were the other institutional type most likely to have a formal centralized plan (54.8%). They also reported a significant reliance on formal decentralization (46.2%) and formal guidance (39.9%) approaches to planning. This finding may reflect two types of baccalaureate institutions - those with very centralized plans and those with decentralized plans or guidance mechanisms.

Master's and doctoral institutions differed from the overall pattern and that of the other types of institutions by being most likely to have adopted a formal decentralized plan (58.5% and 56.9%). Although not statistically significant, they also reported more reliance on limited centralization and on a formal guidance approach than did other institutional types. This pattern may reflect the need to decentralize efforts in larger more complex institutions.

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Research universities, not surprisingly, were least likely among the institutional types to adopt a formal centralized plan (27.8%). They were also most likely to depend on an informal approach (25.3%). If one combines emergent plans (12.7%) with none at all (19.0%), over 30% of research universities reported having no student assessment plan - almost 50% higher than for all other types.

Plan or Policy by Institutional Control. Public and private institutions differed statistically on their approach to an institutional plan or policy in only two ways. Private institutions were more likely than public institutions to have adopted a formal, decentralized plan (45.5%) or to be in an emergent or developmental stage of planning (19.4%). While formal centralized plans were similar for the two types of institutions, privates appeared to be behind the publics in developing institutional plans for students assessment and more likely to develop a decentralized approach.

Summary. Institutional plans for student assessment vary extensively and a significant number of institutions are still developing them. The institutional type differences are somewhat striking with associate of arts and baccalaureate institutions depending most on a formal, centralized plan while master's, doctoral, and to a lesser degree, research universities, are likely to emphasize formal decentralized planning. Research universities still are the most decentralized, informal or unplanned setting. Privates institutions appear to be slightly behind the public institutions in student assessment planning--but catching up.

5.2.4 Institution-Wide Planning Body or Group

Implicit in the preceding discussion is a structural question that was addressed explicitly; i.e. the proportion of responding institutions that have an institution-wide group, committee, or task force responsible for ongoing planning or policy setting for undergraduate student assessment. Table 5.6 presents the results of that inquiry.

Among all respondents, 70.4% of the institutions reported the existence of such a body. The differences by institutional type indicate they were more likely to exist in associate of arts, baccalaureate, and master's level institutions (72.7%, 72.5%, and 72.8%, respectively); and less likely to be found in doctoral (61.5%) and research universities (44.9%). Public and private

Table 5.6 Existence of and Membership on Institution-Wide Student Assessment Planning Group by Institutional Type and Control

	Institutions (%) Reporting									
	Institutional Type N=1269							Institutional Control N=1336		
Existence of Assessment Planning Group	All N=1336	Assoc of Arts N=24	Baccalaureate N=306	Master's N=305	Doctoral N=65	Research N=69	Chi-Square	Public N=940	Private N=396	Chi-Square
1. Has institution-wide planning group for undergraduate student assessment	70.4	72.7	72.5	72.8	61.5	44.9	26.9**	69.2	72.4	1.5
Membership on Student Assessment Planning Group[a]	All N=943	Assoc of Arts N=378	Baccalaureate N=223	Master's N=226	Doctoral N=40	Research N=32	Chi-Square	Public N=585	Private N=358	Chi-Square
1. Chief executive officer	13.0	16.9	11.7	7.1	2.5	3.1	19.70**	12.8	13.4	.07
2. Academic affairs administrator or staff	85.8	86.0	84.8	87.2	82.5	87.5	.99	85.5	86.3	.13
3. Student affairs administrator or staff	54.3	66.9	39.9	46.9	50.0	50.0	48.28**	61.4	42.7	31.06**
4. Institutional research administrator or staff	60.7	67.2	52.9	59.3	60.0	62.5	12.56*	66.2	51.7	19.51**
5. Academic review and evaluation administrator or staff	23.5	23.8	20.2	21.7	30.0	34.4	4.80	24.8	21.5	1.33
6. Student assessment administrator or staff	32.3	36.5	22.4	32.3	37.5	50.0	18.03**	38.3	22.6	24.91**
7. Faculty	90.9	91.3	90.1	93.4	97.5	78.1	10.55*	90.6	91.3	.15
8. Students	33.1	27.8	38.1	37.6	40.0	31.3	10.24*	33.3	32.7	.04
9. Other	11.9	13.0	14.8	8.4	10.0	12.5	4.85	10.6	14.0	2.41

[a] Only institutions with an institution-wide planning group for student assessment responded to this question

* $p < .05$; ** $p < .01$

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institutions did not differ in terms of the existence of an institution-wide group. This pattern seems to reflect the lower focus on undergraduate education and/or student assessment in the institutions emphasizing doctoral level education and research.

5.2.5 Membership on Institution-Wide Planning and Policy Setting Bodies

According to the literature on student assessment, another major issue in planning is representation on planning and policy setting bodies and involvement in those processes. Institutions with an institution-wide planning or policy group were asked to indicate who served on this group. Table 5.6 displays this information for eight different campus positions or functional groups.

The two groups by far most likely to be represented were faculty (90.9%) and an academic affairs administrator (85.8%). The other two groups represented by more than 50% of the respondents were institutional researchers (60.7%) and student affairs administrators (54.3%). Considerably lower were representation figures for academic evaluation administrators (23.5%) and student assessment administrators (32.5%). However, the combination of these two with the institutional researchers may suggest a higher proportion of membership of groups with analytic expertise in student assessment. The lower involvement of student affairs staff (32.3%) and students (33.1%) indicates this arena is still the province of academic affairs administrators, faculty and research/evaluation experts. The lowest level of involvement by the chief executive officer (13.0%) is also worthy of note; serving on such groups is not a regular part of their role.

Membership by Institutional Type. There were statistically significant differences on six of the eight groups represented on these institution-wide committees among the institutional types (see Table 5.6). Before commenting on each institutional type, it is important to note the higher level of membership by an academic affairs administrator (82.5% to 87.5%) and faculty member (78.1% to 97.5%) in all types of institutions and the low level of involvement by the chief executive officer (2.5% to 16.9%) in all of them.

Associate of arts institutions differed from the other institutional types in their higher levels of involvement by student affairs administrators (66.9%), institutional researchers (67.2%), and the chief executive officer (16.9%), and their lower level of student involvement (27.8%). This higher level of involvement of chief executive officers, student affairs administrators, and analytic expertise may reflect the broad array of purposes associate of arts institutions ascribed to student assessment (see section 5.1.2).

Baccalaureate institutions were notable in having the lowest membership among the institutional types of institutional researchers (52.9%), student affairs staff (39.9%), and student assessment staff (22.4%). The lower level of student affairs involvement is surprising given that these institutions are considered to be student-oriented. The lower level of involvement of research and analytic experts may represent the fact that these functions are less well developed in smaller institutions.

Master's institutions did not differ statistically from other types. However, doctoral institutions had the highest proportion of faculty (97.5%) and students (40.0%) compared to other institutions and the lowest level of chief executive officer involvement (2.5%). This doctoral pattern is in sharp contrast with research universities who, while also having low involvement by the chief executive officer (3.1%), had the lowest levels of faculty involvement (78.1%). Research universities also had the highest involvement by a student assessment administrator (52.0%) - probably reflecting their more extensive and specialized research staff. Institutional researcher (62.5%) and academic evaluation staff (34.4%) involvement were also high compared to other types of institutions.

Membership by Institutional Control. Membership on institution-wide bodies was statistically different between pubic and private institutions for only three groups. Public institutions were more likely to have student affairs staff (61.4%), institutional research staff (66.2%), and student assessment staff (38.3%) involved than are private institutions. This difference may reflect both a greater administrative focus of public institutions which, on average, are larger than private institutions, and public institutions' response to state pressures for student assessment information.

Summary. While faculty and academic administrators are the most represented groups on institution-wide student assessment bodies, research and evaluation expertise is also well represented. CEOs are not involved directly at this level and student participation is still limited. Associate of arts institutions give greater representation to CEOs, student affairs staff and institutional researchers. Baccalaureate and master's institutions do not stand out with a unique pattern. Doctoral institutions stress faculty and student participation most while research universities have the lowest faculty involvement (but still high) and emphasize the presence of varied types of staff with specific expertise in student assessment.

5.2.6 Executive Responsibility for Institution-Wide Student Assessment

Formal leadership for institution-wide planning efforts is often placed in the hands of the chair of the institution-wide planning group if one exists. The survey asked who was vested with such responsibility at each institution. Table 5.7 summarizes their responses.

From among the six positions or functions provided as responses, institutions reported that an academic affairs administrator most often held this responsibility (55.3%), followed by a faculty member (31.1%) or an institutional research officer (17.7%). No other official was named more than 10% of the time.

Executive Responsibility By Institutional Type. In all institutional types, the academic affairs administrator was most often identified as the person with executive responsibility for student assessment planning and policy setting. However, there were significant differences among the institutional types in three positions - faculty member, student affairs administrator, and academic review or evaluation officer.

Associate of arts institutions more often placed executive responsibility in the hands of a student affairs administrator (12.7%) than did the other institutional types (although they still most often mentioned an academic affairs administrator or a faculty member). Baccalaureate institutions also used an academic administrator or faculty member most often. However, they were least likely among the institutional types to select a student affairs administrator (2.7%). This difference probably reflects the academic and faculty focus of these institutions. Master's and doctoral

Table 5.7 Executive Responsibility for Institution-Wide Student Assessment Planning Group by Institutional Type and Control

	Institutions (%) Reporting									
		Institutional Type N=911						Institutional Control N=955		
Executive responsibility for institution-wide planning group assigned to following position or functional area*	All N=955	Assoc of Arts N=385	Baccalaureate N=225	Master's N=229	Doctoral N=40	Research N=32	Chi-Square	Public N=596	Private N=359	Chi-Square
1. Academic affairs administrator	55.3	53.5	59.6	54.1	45.0	65.6	5.36	53.4	58.5	2.40
2. Student affairs administrator	7.3	12.7	2.7	3.1	2.5	6.3	32.03**	9.6	3.6	11.65**
3. Institutional research officer	17.7	18.2	19.1	17.0	12.5	15.6	1.27	17.4	18.1	.07
4. Academic review and evaluation officer	5.4	3.4	5.3	6.1	12.5	15.6	13.86**	4.7	6.7	1.72
5. Student assessment officer	8.1	8.3	9.8	8.3	5.0	3.1	2.33	9.2	6.1	2.91
6. Faculty member	31.1	29.6	28.4	38.0	42.5	9.4	15.62**	30.7	31.8	.12
7. Other	10.8	11.9	7.1	10.9	15.0	12.5	4.57	12.1	8.6	2.76

*Only institutions with an institution-wide planning group for student assessment responded to this question

* $p < .05$; ** $p < .01$

institutions also followed the pattern of selecting academic administrators most often and a faculty member second most often; but compared to the other institutions, they were most likely to select a faculty member (38.0% and 42.5%, respectively). Research universities, while relying most on an academic administrator—like the other institutional types—varied by using an institutional research officer or academic review and evaluation officer second (15.6% of the time for each). They were also least likely among the institutional types to use a faculty member in this role (9.4%). This finding, again, may reflect the reliance on specialized experts in research and evaluation in these institutions.

Executive Responsibility by Institutional Control. Public and private institutions did not differ on the top three positions in whom they place responsibility. In descending order, they relied on an academic affairs administrator, a faculty member, and then an institutional research officer. However, public and private institutions exhibited a statistically significant difference on two positions. Public institutions more often used a student affairs administrator (9.6%). Student affairs administrators were the fourth most frequently named assessment authority figures in public institutions and seventh in private institutions.

Summary. Executive responsibility for planning is most often placed in the hands of an academic administrative officer in all types of institutions. Faculty are used second most often in all but research universities which rely more heavily on institutional research officers and academic review and evaluation officers than do other types of institutions. Student affairs administrators serve this role infrequently but are more likely to be used in associate of arts and/or public institutions.

5.2.7 Approval Authority for Student Assessment Plans and Policies

Approval of plans and policies for any major institutional decision is often complex in a higher educational institution; such appears to be the case for student assessment plans and policies. Respondents were asked to identify who, among eleven possible positions or groups, had authority to give such approval on their campus. They could identify more than one. Table 5.8 arrays these responses.

Table 5.8 Approval Authority for Student Assessment Plan or Policies by Institutional Type and Control

	Institutions (%) Assigning Approval Authority for Student Assessment Plan or Policies									
		Institutional Type N=1240						Institutional Control N=1305		
Positions or functional areas within institution	All N=1305	Assoc of Arts N=515	Baccalaureate N=301	Master's N=300	Doctoral N=64	Research N=60	Chi-Square	Public N=825	Private N=480	Chi-Square
1. Board of trustees	17.2	24.3	12.3	11.7	9.4	6.7	37.71**	19.3	13.8	6.49*
2. Chief executive officer	45.4	56.5	39.9	37.0	29.7	21.7	57.79**	49.5	38.5	14.58**
3. Chief academic affairs officer	75.3	71.8	76.1	80.3	76.6	88.3	12.97*	74.7	76.5	.52
4. Chief student affairs officer	19.7	28.2	13.0	13.3	10.9	18.3	43.07**	23.8	12.7	23.43**
5. Institutional research officer	18.2	20.2	20.6	15.0	10.9	18.3	6.73	18.7	17.5	.28
6. Academic review and evaluation officer	8.4	7.4	7.0	8.3	20.3	13.3	15.08**	8.7	7.9	.26
7. Student assessment officer	10.0	12.2	9.3	8.7	9.4	6.7	4.21	12.1	6.5	10.78**
8. Student government	1.2	.4	.3	3.7	1.6	–	20.80**	1.2	1.3	.01
9. Academic senate or other faculty committee	38.5	30.1	52.2	47.7	29.7	21.7	58.27**	32.8	48.1	29.92**
10. Faculty union	4.4	3.3	7.3	4.7	1.6	–	11.68*	3.5	5.8	3.90*
11. Other	13.9	16.3	14.6	11.3	4.7	5.0	12.94*	14.5	12.7	.86

* $p < .05$; ** $p < .01$

On average each respondent checked 2.5 positions or groups in response to this question. This response pattern indicates that student assessment plans or policies have to be approved by multiple sources. As Table 5.8 indicates, the most frequently mentioned were the chief academic officer (75.3%) and the chief executive officer (45.4%). Others in descending order were the academic senate or a faculty committee (38.5%), the chief student affairs officer (19.7%), an institutional research officer (18.2%), and the board of trustees (17.2%). Other positions or groups were mentioned by less than 10% of the respondents. Some may note the irony that student government was the least mentioned group (1.2%) to approve student assessment plans and policies that directly affect them and presumably are designed to benefit them.

Approval by Institutional Type. There were significant differences among the institutional types on nine of the eleven response categories. It should be noted that all five institutional types cited the chief academic affairs officer most frequently (71.8% to 88.3% of the time), but subsequent patterns differed.

Associate of arts institutions identified their chief executive officer second most frequently (56.5%) and chief student affairs officer third (28.2%)—both were the highest frequencies among all institutional types. Associate of arts institutions also named their boards of trustees (24.3%) more often than did the other institutional types. This pattern probably reflects the important role of student affairs and boards of trustees in these institutions.

Baccalaureate institutions, after the chief academic affairs officer, mentioned the academic senate or faculty committee second most frequently (52.2%) and significantly more than the other institutional types. These institutions are also least likely to mention a student affairs officer (13.0%). The pattern of faculty involvement in these institutions continues.

Master's institutions were similar to baccalaureate institutions in citing the chief academic affairs officer most often (80.3%) and the academic senate or faculty committee second most often (47.7%). However, they were not the highest or lowest among the institutional types in mentioning any of the other positions.

Doctoral institutions continued the pattern of mentioning the chief academic affairs officer most often (76.6%) but dropped drastically in their second most frequently mentioned positions—academic senate or faculty committee and chief executive officer (both 29.7%). They mentioned an academic review or evaluation officer (20.3%) significantly more often than the other institutional types. These institutions, more than the previous ones, seem to place heavier reliance on the chief academic affairs officer.

Research institutions once again stand out. They mentioned the chief academic affairs officer first (88.3%) among the positions and also highest by a statistically significant margin over the other institutional types. They dropped dramatically in their second most frequently mentioned positions: chief executive officer and academic senate or faculty committee (both 21.7%), both of which were lowest among all institutional types. They were also least likely by a significant margin to identify their board of trustees (6.7%) as a source of approval. Like doctoral institutions, they seem to focus a great deal of approval authority in the chief academic affairs officer.

Approval by Institutional Control. Public and private institutions differed statistically on six of the eleven sources of approval. They did not differ on the most frequently cited source of approval—the chief academic affairs officer (74.7% and 76.5%)—however, they differed both statistically and in order of sequence on the second and third sources. Public institutions mentioned the chief executive officer second (49.5%) and the academic senate or faculty committee third (32.8%), while private institutions reversed that order, mentioning faculty bodies second (48.1%) and the chief executive officer third (38.5%). In other comparisons, public institutions required approval more often from a chief student affairs officer (23.8%), their board of trustees (19.3%), and from a student assessment officer (12.1%).

Summary. Approval of student assessment plans and policies is complex and seems to involve multiple layers. However, it tends to be concentrated primarily in chief academic affairs officers and secondarily in the chief executive officer or an academic senate or faculty committee. The institutional types do not vary on the primary sources of approval but do vary in secondary and lesser sources of approval authority. Chief executive officers and student affairs officers play a more central role in associate of arts institutions. Academic senates and faculty committees are more often mentioned in baccalaureate and master's level institutions. Doctoral institutions are more likely to use a student assessment officer while research universities concentrate the approval authority most in the chief academic affairs officer. The public-private differences reflect the tendency of public institutions to place greater reliance for secondary approval on the chief executive officer, a chief student affairs officer, their boards of trustees and/or a student assessment officer while privates rely more on academic senates and faculty committees as a secondary source of approval.

5.2.8 Operational Responsibility for Student Assessment

Since an institution-wide student assessment plan or process can involve an extensive amount of administrative, logistical, and analytic work, operational responsibility for student assessment is often focused in a quite different officer or function than is the executive responsibility for, or approval authority over, the institutional plan or policies. The survey asked responding institutions to indicate from among six alternatives (eight including "other" and "no one") who in their institutions had day-to-day operating responsibility for student assessment. The responses are presented in Table 5.9.

The overall pattern of responses clearly indicates that more than one position or office was identified in most institutions. The average number of responses was approximately two per institution. The most frequently mentioned positions or offices were an academic affairs administrator (45.4%) or an institutional research officer (45.3%) followed by a faculty member (32.6%), a student affairs administrator (19.6%), a student assessment officer (15.2%), and an academic evaluation or review officer (9.1%). This pattern obviously reflects a diverse array of positions or offices overseeing student assessment.

Operating Responsibility by Institutional Type. All five institutional types mentioned either an academic affairs administrator or an institutional research officer most often although their order varies by institutional type. There were statistically significant differences on four of the six

Table 5.9 Operating Responsibility for Day-to-day Student Assessment Activities by Institutional Type and Control

Positions or functional areas with operating responsibility	Institutions (%) Assigning Operating Responsibility for Day-to-day Student Assessment Activities									
		Institutional Type N=1313						Institutional Control N=1380		
	All N=1380	Assoc of Arts N=545	Baccalaureate N=313	Master's N=311	Doctoral N=65	Research N=79	Chi-Square	Public N=879	Private N=501	Chi-Square
1. Academic affairs administrator	45.4	42.0	54.3	44.4	47.7	40.5	13.52**	42.3	50.9	9.47**
2. Student affairs administrator	19.6	24.2	13.7	15.8	13.8	22.8	19.16**	21.2	16.8	3.92*
3. Institutional research officer	45.3	49.4	41.9	47.3	36.9	48.1	7.05	46.6	42.9	1.79
4. Academic review and evaluation officer	9.1	5.9	10.2	11.3	16.9	15.2	17.06**	8.5	10.0	.81
5. Student assessment officer	15.2	17.6	12.5	14.5	15.4	12.7	4.81	18.5	9.4	20.77**
6. Faculty member	32.6	27.2	39.0	38.6	32.3	19.0	24.93**	27.8	41.1	25.92**
7. Other	12.5	10.6	9.9	16.1	9.2	19.0	11.08*	11.4	14.4	2.62
8. No one	3.3	3.7	2.6	3.2	–	8.9	10.21*	3.2	3.6	.16

* $p < .05$; ** $p < .01$

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positions or offices identified. Associate of arts institutions relied on an institutional research officer most (49.4%) followed by an academic administrator (42.0%). Among the institutional types, they were most likely to use a student affairs administrator (24.2%) in this role and least likely to use an academic evaluation or review officer (5.9%).

Baccalaureate institutions relied more than other institutional types on an academic affairs administrator for operating responsibility (54.3%). But in the second position, they were most likely to depend on an institutional research officer (41.9%), followed by a faculty member (39.0%). They were least likely to use a student affairs administrator (13.7%).

Master's institutions depended about equally on an institutional research officer (47.3%) or an academic affairs administrator (44.4%) but also drew heavily, compared to the other institutional types, on a faculty member (38.6%).

Doctoral institutions primarily used an academic affairs administrator (47.7%), an institutional research officer (36.9%) or a faculty member (32.3%). But they differed from the other institutional types in using student affairs administrators least (13.8%).

Research universities most often used institutional research officers (48.1%) or an academic affairs administrator (40.5%), followed by a diverse pattern of other positions. They were highest among the institutional types in using a student affairs administrator (22.8%), or another officer (19.0%) and lowest in using a faculty member (19.0).

Operating Responsibility by Institutional Control. Both public and private institutions relied primarily on institutional research officers or academic affairs officers for operating responsibility for student assessment. However, private institutions statistically placed greater reliance on an academic affairs administrator (50.9%) or on a faculty member (41.1%) than did public institutions. Public institutions meanwhile were statistically more likely to use a student affairs administrator (21.2%) or a student assessment officer (18.5%).

Summary. Operating responsibility for student assessment is typically vested in more than one person or position. But primarily, it is placed with an academic administrator or an institutional research officer and secondarily with a faculty member. Institutional type differences are extensive. While the primary patterns hold, associate of arts institutions use student affairs administrators most and academic review and evaluation officers least. Baccalaureate institutions use an academic affairs administrator most and a student affairs administrator least. Master's institutions use faculty members to a considerable degree. Doctoral institutions are most likely to use an academic review and evaluation officer. Research universities, after the two primary offices, are least likely to use an academic affairs officer or a faculty member. Public and private differences reflect the public institutions' larger use of student affairs administrators and student assessment officers while private institutions rely more than the publics on academic affairs administrators or faculty.

5.2.9 Reporting Relationship of Individual with Operating Responsibility for Student Assessment

Institutions responding to the survey were asked to whom the individual with day-to-day operating responsibility for student assessment reported. Table 5.10 arrays the responses to this question.

Overall, there were only two administrative offices to which the person responsible for day-to-day operations of student assessment typically reported: the chief academic officer (56.3%) and the chief executive officer (28.9%). The other three offices were each mentioned less than 8% of the time.

Reporting Relationship by Institutional Type. Despite the predominance of only two offices to whom assessment staff reported, there were significant differences among the different institutional types on the offices named. Associate of arts institutions identified the chief academic and executive offices as two primary reporting places. However, among the institutional types, they were most likely to report to the chief executive officer (37.4%) and least likely to report to the chief academic officer (42.6%). They were also most likely to report to a chief student affairs officer (12.6%). In baccalaureate and master's institutions, operating officers reported to the two most frequently mentioned offices, but were least likely among the institutional types to report to a chief student affairs officer (2.0% and 3.0%). Doctoral institutions were the most likely of any institutional type to have the individual with operating responsibility report to the chief academic

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Table 5.10 Reporting Relationship for Operating Day-to-day Student Assessment Activities by Institutional Type and Control

	Institutions (%) with Operational Reporting Line for Day-to-day Student Assessment Activities									
		Institutional Type N=1256						Institutional Control N=1324		
Reporting office for individual with operating responsibility for student assessment	All N=1324	Assoc of Arts N=524	Bacca-laureate N=299	Master's N=298	Doctoral N=64	Research N=71	Chi-Square	Public N=850	Private N=474	Chi-Square
1. Chief executive officer	28.9	37.4	28.4	18.5	9.4	5.6	65.64**	28.5	29.7	.24
2. Chief academic officer	56.3	42.6	65.9	71.1	76.6	60.6	89.03**	52.2	63.7	16.30**
3. Chief student affairs officer	7.3	12.6	2.0	3.0	6.3	11.3	43.33**	10.1	2.3	27.25**
4. Institutional research officer	2.5	2.3	1.7	4.0	–	4.2	6.17	2.9	1.7	1.97
5. Academic review and evaluation officer	1.5	1.1	2.0	1.0	1.6	4.2	4.99	1.3	1.9	.75
6. Other	10.3	11.3	6.0	11.1	7.8	21.1	16.01**	11.8	7.6	5.74*

* $p < .05$; ** $p < .01$

officer (76.6%). They were similar to research institutions in that both institutional types reported the lowest levels of reporting to the chief executive officer (9.4% for doctoral and 5.6% for research).

Reporting Relationship by Institutional Control. Both public and private institutions identified assessment staff as reporting most frequently to the chief academic officer but private institutions did so more often (63.7%) with a statistically significant difference. While they both mentioned chief executive officers equally in second place, public institutions were more likely to mention reporting to a chief student affairs officer (10.1%).

Summary. Individuals with operating responsibility for student assessment report most frequently to the chief academic officer in all types of institutions and in both the public and private sector. Both public and private and the various types of institutions, except research universities, identify the chief executive officer as the second most frequent reporting recipient. Research institutions listed the chief student affairs office second.

5.2.10 Office Providing Faculty Consultation on Student Assessment

An administrative feature often mentioned in the literature is an office with expertise in student assessment that can serve as a consulting service to faculty, administrators, and/or academic units interested in improving their practice and use of student assessment. Respondents were asked if their institutions had such an office. The questionnaire did not delve into the exact functions, activities, or resources of such offices. Responses are shown in Table 5.11.

As the table indicates, 47.3% of all institutions reported the existence of such an office. Furthermore, there was a statistically significant difference among institutional types. Such offices were most likely to be found in research universities (63.8%), to a lesser degree in master's and doctoral institutions (53.4% and 50.8%), and least often in associate of arts and baccalaureate institutions (46.5% and 40.5%). They were also more likely to be found in public institutions (50.7%). These offices seem to be found in the large graduate and research institutions that typically have a greater array of academic and administrative support staff. They exist less frequently in those institutions whose primary mission is teaching undergraduates.

Table 5.11 Existence of Office Providing Faculty Consultation for Using Student Assessment by Institutional Type and Control

Institutions with Office Providing Faculty Consultation for Using Student Assessment

	N	%
All Institutions (N=1371)	649	47.3
Institutional Type (N=1303)		
Associate of Arts (N=540)	251	46.5
Baccalaureate (N=309)	125	40.5
Master's (N=309)	165	53.4
Doctoral (N=65)	33	50.8
Research (N=80)	51	63.8
Chi-Square		19.31**
Institutional Control (N=1371)		
Public (N=874)	443	50.7
Private (N=497)	206	41.4
Chi-Square		10.85**

** $p < .01$

5.3 Evaluation of the Student Assessment Process

Evaluation of any institutional function, process or activity in higher education is always encouraged. The literature on student assessment reflects this mantra but provides few examples or models of it in practice. This discrepancy is not surprising given the fact that most student assessment plans, processes and practices have been introduced within the past decade. The status of evaluation of student assessment and its elements were addressed in the questionnaire.

5.3.1 Status of Evaluation of Student Assessment

Institutions were asked whether they had conducted a formal evaluation, an informal evaluation, were currently developing plans for one or were not doing an evaluation of their student assessment process. The results are depicted in Table 5.12.

The status of institutional evaluation of student assessment was widely varied. Most institutions had either conducted an informal evaluation (27.4%) or were planning to do so (29.2%). Slightly fewer institutions reported doing a formal evaluation (22.2%) or not doing any type of evaluation (21.2%).

Status of Evaluation by Institutional Type and Control. From Table 5.12, it is clear that associate of arts institutions were most likely to have conducted formal evaluations (26.0%) and less likely to report having done none (20.0%). Baccalaureate and master's institutions were most likely to be developing an evaluation plan (32.6% and 31.4%). Doctoral and research institutions were least likely to have done a formal evaluation (15.6% and 17.5%); but doctoral institutions were highest in having done informal evaluations (34.4%). Research universities were lowest in having done either formal (17.5%) or informal evaluations (18.8%) and most likely not to be planning one (38.8%). Public and private institutions did not vary statistically in their evaluation of student assessment although private institutions indicated developing plans for an evaluation more than publics (33.2%).

Summary. Evaluation of student assessment is not yet well developed. Formal and informal evaluations have been done by less than 52% of the institutions regardless of type. Research universities stand out as having done the least evaluation to date.

5.3.2 Elements of an Evaluation of Student Assessment

Institutions that reported having conducted formal or informal evaluation were asked to indicate which of eight elements of their student assessment plan and process were reviewed (See Table 5.12). Five elements were reported as reviewed by more than 60% of all respondents who had either formally or informally evaluated their assessment plan or process: plans and policies (78.7%), achievement of intended objectives (68.6%), decision use of assessment information (65.7%), problems in conducting assessment (67.2%), and structure and responsibility (63.1%). Both the reliability and validity of instruments (52.0%) and quality of data analysis (48.9%) were also mentioned frequently. Only the cost and benefits of student assessment (21.8%) were not widely addressed.

Elements of Evaluation by Institutional Type. All institutional types gave the most attention to plans and policies for student assessment and the least to cost and benefit analysis. There were statistically significant differences among institutional types on only four of the eight elements.

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Table 5.12 Institutional Evaluation of Student Assessment Process by Institutional Type and Control

Status of Student Assessment Evaluation	Institutions (%) Engaging in Evaluation Activities							
	Institutional Type N=1295						Institutional Control N=1363	
	All N=1363	Assoc of Arts N=535	Bacca-laureate N=307	Master's N=309	Doctoral N=64	Research N=80	Public N=866	Private N=497
1. Institution has conducted formal evaluation	22.2	26.0	21.2	18.8	15.6	17.5	23.3	20.1
2. Institution has conducted informal evaluation	27.4	26.4	25.7	30.4	34.4	18.8	27.9	26.6
3. Institution is currently developing evaluation plans	29.2	27.7	32.6	31.4	23.4	25.0	26.9	33.2
4. Institution is not evaluating or planning to evaluate assessment process	21.2	20.0	20.5	19.4	26.6	38.8	21.8	20.1
	Chi-Square 28.69**						Chi-Square 6.40	

Elements of Assessment Process Evaluated[a]	Institutional Type N=629							Institutional Control N=668		
	All N=668	Assoc of Arts N=276	Bacca-laureate N=143	Master's N=151	Doctoral N=31	Research N=28	Chi-Square	Public N=439	Private N=229	Chi-Square
1. Student assessment plan and policies	80.7	78.6	89.5	78.8	67.7	78.6	11.61*	79.3	83.4	1.65
2. Structure and responsibility for student assessment	64.4	60.9	73.4	67.5	51.6	60.7	9.61*	61.5	69.9	4.59*
3. Achievement of intended objectives for student assessment	70.1	70.7	75.5	73.5	51.6	60.7	9.01	68.8	72.5	.98
4. Reliability and validity of assessment instruments and methods	53.7	57.6	52.4	51.7	32.3	53.6	7.77	54.2	52.8	.12
5. Quality of data analysis	50.9	49.3	54.5	54.3	32.3	57.1	6.48	49.2	54.1	1.47
6. Use of assessment information in decision-making	66.2	68.8	73.4	60.3	45.2	75.0	13.67**	65.6	67.2	.18
7. Problems encountered while conducting assessment activities	69.3	66.7	74.1	73.5	58.1	75.0	5.94	69.2	69.4	.01
8. Comparison of costs and benefits of student assessment	22.2	22.8	30.8	23.2	3.2	7.1	15.68**	21.0	24.5	1.07

[a] Only institutions that had formally or informally evaluated their student assessment process answered this question

* $p < .05$; ** $p < .01$

Baccalaureate institutions examined all four of these elements more than the other types of institutions: plans and policies (97.2%), achievement of intended objectives (73.2%), use of information in decision making (72.6%), and cost and benefit analysis (31.1%). Doctoral institutions, compared to the other institutional types, gave the least attention to these four elements. This pattern suggests that baccalaureate institutions conduct the most thorough evaluations of student assessment and doctoral institutions the least thorough.

Elements of Evaluation by Institutional Control. There were no statistical differences between public and private institutions on any of the elements in the evaluation of student assessment.

Summary. Most elements of a good evaluation are given considerable attention by institutions that have done formal or informal evaluations of their student assessment plan and process. The actual plans and policies are the most frequently cited elements of a review. Among institutional types, baccalaureate institutions seem to be conducting the most comprehensive reviews and doctoral institutions the least comprehensive. Public and private institutions give similar attention to the eight elements of an evaluation.

6. Assessment Management Policies and Practices for Student Assessment

This chapter examines assessment management policies and practices as a specific domain of institutional support for student assessment (research question three). Assessment management policies and practices are the mechanisms through which institutions support student assessment efforts and increase the likelihood of using the student assessment information collected (Ewell 1988a, 1997; Sell, 1989b). In the literature, assessment management policies and practices designed to support the practice of and use of student assessment were identified in seven functional areas or dimensions: resource allocation; student assessment information systems; accessibility and distribution of student assessment information; student-related policies; professional development; faculty evaluation and rewards; and academic planning and review. Findings regarding each of these areas or dimensions are summarized in the sections to follow. For each dimension, we present responses from all institutions (research question three) and then responses by institutional type and control (research question five).

6.1 Resource Allocation for Student Assessment

Scholars have discussed two broad issues with respect to resource allocation policies and practices for student assessment: the explicit commitment of institutional resources for student assessment activities (Eisenman, 1991; Thomas, 1991) and the linkage between student assessment activities and information to the internal resource allocation process (Ewell, 1987a, 1987b, 1987c, 1988a). The former issue is expected to affect the capacity of an institution to conduct comprehensive student assessment activities, while the latter issue is expected to influence internal support, uses and impacts of student assessment. Accordingly, the ISSA instrument asked respondents to indicate which of the following resource allocation policies or practices existed at their institutions: (a) explicit budget allocation for student assessment, (b) student performance indicators used informally to allocate resources to academic units, (c) student performance indicators used to competitively allocate resources among academic units, and (d) student performance indicators used as a basis for rewarding improvement in academic units. Responses to these questions are displayed in Table 6.1.

Almost half (49.1%) of all institutions have established an explicit budget allocation to support their student assessment activities and close to a quarter (22.9%) used student assessment information informally in the budget process. However, very few institutions reported using student performance indicators to reward academic units in the budget process (3.3%) or to competitively allocate resources among academic units (1.9%).

6.1.1 Resource Allocation for Student Assessment by Institutional Type

Statistically significant differences across types of institutions were found in two resource allocation practices. Baccalaureate institutions most often reported having an explicit budget allocation for student assessment (56.6%), followed closely by master's (53.2%), associate of arts (47.2%) and doctoral (46.2%) institutions while research universities were much less likely to have allocated resources for assessment (33.3%). Baccalaureate institutions were the least likely (15.1%) institutional type to report informally using student performance indicators to allocate resources among academic units; associate of arts (26.4%) and master's (25.0%) institutions were most likely to do so, followed closely by doctoral (21.5%) and research (20.5) institutions. There were no significant differences in the use of student performance indicators to reward or competitively allocate resources to academic units; the existence of these resource allocation practices was uniformly low across all institutional types.

6.1.2 Resource Allocation for Student Assessment by Institutional Control

Public institutions were statistically more likely than private (26.1% versus 17.4%) to informally use student performance indicators to determine resource allocations for academic units. No other significant differences emerged with respect to public and private institutions' resource allocation policies and practices for student assessment.

Summary. While no attempt was made to ascertain the proportion or amount of institutional resources being committed, survey findings indicate that close to half of all institutions

Table 6.1 Resource Allocation Policies for Student Assessment by Institutional Type and Control

	Institutions (%) with Resource Allocation Policy or Practice									
		Institutional Type N=1293						Institutional Control N=1360		
Resource allocation policies or practices intended to support the collection or use of student assessment information	All N=1360	Associate of Arts N=538	Bacca-laureate N=304	Master's N=308	Doctoral N=65	Research N=78	Chi-Square	Public N=867	Private N=493	Chi-Square
1. Explicit line item operating budget allocation for student assessment	49.1	47.2	56.6	53.2	46.2	33.3	17.29**	48.1	50.9	.99
2. Academic budget process considers student performance indicators informally in resource allocation to academic units	22.9	26.4	15.1	25.0	21.5	20.5	15.24**	26.1	17.4	13.22**
3. Academic budget process compares academic units on student performance indicators and allocates resources competitively among them	1.9	1.9	2.3	1.9	–	2.6	1.68	2.0	1.8	.03
4. Academic budget process rewards academic units for improvement based on student performance indicators	3.3	2.8	2.6	4.9	3.1	6.4	5.22	3.8	2.4	1.85

* $p < .05$; ** $p < .01$

have established explicit budget allocations to support their student assessment activities. Research universities were an exception to this practice, with only a third having done so. To a lesser extent, institutions have informally linked student assessment information to the budget process. This practice was less common among baccalaureate institutions compared to other institutional types, and consequently, less common among private compared to public institutions. More direct linkages between student assessment information and budgetary decisions appear to be a rare resource allocation practice.

6.2 Student Assessment Information Systems

In practical terms, the availability of a computerized and comprehensive information system may affect an institution's ability to collect and analyze student assessment information (Astin & Ayala, 1987; Gill, 1993). In addition, institutions have been encouraged to institutionalize opportunities for collecting student assessment data by formally scheduling key assessment activities into the academic calendar (Duvall, 1994). Institutional respondents were asked: (a) whether they had formally scheduled student assessment activities; and whether they had a student information system that (b) was computerized and contained student performance indicators; (c) could track students over their enrollment; and (d) was integrated with other institutional databases. Responses to these questions are displayed in Table 6.2.

The majority of institutions (57.3%) had included key student assessment activities in their academic calendar. In terms of information system capabilities, about two-fifths (41.9%) of institutions could track students and slightly more than a quarter (27.7%) had computer systems that included student performance indicators, but very few (9.8%) had integrated student assessment data with other institutional databases.

6.2.1 Student Assessment Information Systems by Institutional Type

There were statistically significant differences among institutional types regarding student information practices and system capabilities. Baccalaureate institutions were most likely to have incorporated assessment activities into the academic calendar (64.1%). Associate of arts (58.4%)

Table 6.2 Student Assessment Information System Policies by Institutional Type and Control

	Institutions (%) with Student Assessment Information System Policy or Practice									
		Institutional Type N=1293						Institutional Control N=1360		
Policies or practices regarding student assessment information systems	All N=1360	Associate of Arts N=538	Baccalaureate N=304	Master's N=308	Doctoral N=65	Research N=78	Chi-Square	Public N=867	Private N=493	Chi-Square
1. Key student assessment activities scheduled into the academic calendar	57.3	58.4	64.1	55.5	47.7	38.5	20.24**	54.4	62.3	7.88**
2. Computerized student information system which includes student performance indicators	27.7	34.2	19.1	24.4	21.5	30.8	26.06**	31.9	20.3	21.35**
3. Student information system tracks students from application through graduation	41.9	41.4	39.8	42.9	43.1	55.1	6.25	42.3	41.2	.17
4. Student assessment database integrated with faculty, curricular and financial databases	9.8	13.6	7.6	7.5	4.6	6.4	15.22**	10.7	8.1	2.43

* *p* < .05; ** *p* < .01

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and master's (55.5%) institutions reported a moderately high occurrence of this practice, while doctoral institutions (47.7%) and research institutions (38.5%) were much less likely to have institutionalized student assessment in this manner. On average, associate of arts institutions reported the most comprehensive and sophisticated information systems available to support student assessment; they were most likely of all institutional types to have a student assessment database that was computerized (34.2%) and integrated with databases of other institutional information (13.6%). In comparison, baccalaureate, master's and doctoral institutions were less likely to have a computerized student assessment database (occurrence ranged from 19.1% to 24.4%) and to have the capacity to integrate student assessment data with other institutional information (ranged from 4.6% to 7.6%). A moderately high proportion of research universities reported having a computerized database (30.8%) but a very small percent (6.4%) had integrated this database with other institutional databases.

6.2.2 Student Assessment Information Systems by Institutional Control

Private institutions were significantly more likely than public institutions to schedule key assessment activities into the academic calendar (62.3% versus 54.4%) but less likely to have a computerized information system that includes student performance indicators (20.3% versus 31.9%). In both instances, observed differences by institutional control are largely reflective of the information system practices of baccalaureate institutions. Public and private institutions did not differ statistically in the reported existence of student information systems with tracking and integrative capabilities.

Summary. To a large extent, institutions appear to have institutionalized the collection of student assessment information. As may be expected, the likelihood of this form of institutional support is greatest among undergraduate institutions but declines progressively as one moves up the hierarchy of institutional emphasis on graduate education and research. In terms of information systems capabilities, all types of institutions report a comparable degree of ability to track students over the duration of their enrollment. Greater variance exists in the likelihood of institutions having computerized student assessment databases and having the ability to integrate student

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assessment data with other institutional databases such as faculty, curricular and financial data. It seems likely that this may constrain the ability of institutions to systematically analyze student assessment data and particularly, to examine how student performance may be affected by institutional experiences.

6.3 Access to and Distribution of Student Assessment Information

Scholars suggest there is a positive relationship between the extent to which assessment information regarding the performance of individual students can be accessed by a variety of internal personnel and the institutional use of such information (Krueger & Heisserer, 1987; Sell, 1989b). Once student assessment data have been collected and analyzed, reports summarizing assessment results should be widely and regularly disseminated both within and beyond the institution (Banta et al., 1996; CSUITL, 1993; Ewell, 1984, 1988a; Jacobi et al., 1987). To gauge current institutional practices regarding the accessibility and distribution of student assessment information, survey respondents were asked (a) to whom student assessment information on individual students was available, and (b) to which internal and external constituencies student assessment reports were regularly distributed. Table 6.3 displays responses to both questions.

Student assessment information on individual students was most likely to be available to institutional researchers (76.0%), department chairs or program administrators (73.4%), and senior academic administrators (71.9%). Institutions were comparatively less likely to make such information available to faculty advisors (66.4%) and student affairs professionals (57.9%).

The majority of institutions regularly distributed student assessment reports to academic administrators (85.9%). Faculty were the next most frequently reported recipients of reports (67.2%) followed by student affairs professionals (58.4%). Only one-fifth (19%) of institutions distributed assessment reports to students and less than 10% did so to the general public (8.2%) and employers (4.6%).

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6.3.1 Access to and Distribution of Student Assessment Information by Institutional Type

Patterns of assessment information accessibility for specific institutional types mirrored the general pattern for all institutions, but statistically significant differences were observed among institutional types.

Associate of arts institutions consistently reported the highest levels of information accessibility of all institutional types. This difference was most pronounced with respect to student affairs professionals (70.4%), institutional researchers (83.3%), and to a lesser extent, faculty advisors (71.4%).

Baccalaureate and master's institutions fell consistently in the middle range of reported availability of individual student assessment information. They came close to associate of arts institutions in providing information access to department chairs (71.1% and 76.0%, respectively), senior academic administrators (75.0% and 68.8%), and faculty advisors (65.5% and 62.7%) but were less likely to do so for institutional researchers (72.0% and 77.3%) and student affairs professionals (51.0% and 49.4%).

Although research institutions were slightly more likely than doctoral institutions to provide access to individual assessment information to each of the internal constituencies listed, together these two institutional types uniformly reported the lowest levels of information accessibility. This was especially so in the case of having information available to student affairs professionals (40.0% to 47.4%) and faculty advisors (55.4% to 56.4%).

All types of institutions reported similar levels of report distribution to students, academic administrators and the general public. Statistically significant differences were found with respect to report distribution to other constituencies.

Of all institutional types, associate of arts institutions were most likely to distribute student assessment reports to student affairs professionals (67.1%) and were the second most likely to disseminate reports to students (18.6%) and employers (6.5%). Baccalaureate institutions had the highest level of report distribution to faculty (71.4%) but were less likely than most other types to distribute reports to student affairs professionals (51.0%) and least likely to include employers

(2.0%) among their audiences for reports. Master's institutions were neither lowest nor highest in their distribution of reports to various constituencies. Doctoral institutions reported the lowest occurrence of assessment information distribution to student affairs professionals (49.2%) and fell midway among all institutional types in terms of distribution to faculty (60.0%) and employers (4.6%). Research institutions were significantly less likely than other institutions to distribute assessment reports to faculty (41.0%) but were second highest in their distribution to student affairs professionals (62.8%) and somewhat surprisingly, were most likely to send reports to employers (7.7%).

6.3.2 Access to and Distribution of Student Assessment Information by Institutional Control

Two statistically significant differences were found in accessibility of assessment information between public and private institutions. Public institutions were more likely than private ones to provide access to assessment information on individual students to institutional researchers (78.8% versus 71.2%) and to student affairs professionals (63.1% versus 48.9%).

Compared to private institutions, public institutions more often distributed student assessment reports to student affairs professionals (62.5% versus 51.1%), employers (6.2% versus 1.8%) and the general public (11.0% versus 3.2%).

Summary. On the whole, assessment information on individual students seems to be accessible to a relatively large proportion of various internal personnel. However, institutions more often provided this access to institutional researchers and academic administrators than to personnel with direct student contact. Associate of arts institutions reported the greatest accessibility to individual assessment information while research and doctoral institutions reported the least. Public institutions generally provided greater access to individual assessment information than private institutions.

Internal distribution of student assessment reports was also most often directed toward academic administrators than to faculty and student affairs professionals, and least often included students. Despite some significant differences, no consistent pattern of internal report distribution emerged among institutional types. Distribution of reports to external constituencies was comparatively low across all institutional types. As may be expected, public institutions were more likely than private to distribute assessment reports to employers or the general public. Together, these profiles of access to individual student assessment information and distribution of student assessment reports suggest that student assessment information is produced primarily for internal consumption, and is used more often to inform administrative or policy-related decisions than decisions at the level of direct work with students.

6.4 Student Policies on Student Assessment

Collecting useful student assessment information depends in large part upon the willingness of students to be involved in assessment activities. Practitioners suggest student involvement may be increased if students are either required or provided incentives to participate in assessment activities (Duvall, 1994; Van Stewart, 1996) and by providing students both with information about the purposes of assessment and with individual feedback on assessment results (Dixon, 1994; Duvall, 1994). Respondents indicated the extent to which these student-related policies existed at their institutions (1=not done at all; 2=done in a few departments; 3=done in some departments; 4=done in many departments; 5=done in most departments). Table 6.4 presents the mean scores of respondents for each of these policies.

As shown in Table 6.4, institutions moderately used three of the four student-related policies included in the survey. Institutions made greatest use of policies requiring students to participate in assessment activities (3.77). This was followed closely by providing students with information regarding assessment purposes (3.52), and individual feedback on assessment results (3.21). Institutions made least extensive use of incentives to encourage students' participation in assessment activities; this policy existed in none to a few departments within institutions (1.87).

6.4.1 Student Policies on Student Assessment by Institutional Type

The extent of use of these student policies differed significantly among institutional types. Compared to other types of institutions, associate of arts institutions were most likely to provide students with individual feedback (3.38) and least likely to provide incentives for participation

Table 6.4 Extent of Student Policies on Student Assessment by Institutional Type and Control

	Extent Policy or Practice Exists at Institution[a]									
		Institutional Type N= 1270						Institutional Control N=1334		
Student Policies and Practices on Student Assessment	All N=1334	Associate of Arts N=529	Bacca-laureate N=306	Master's N=302	Doctoral N=61	Research N=72	F	Public N=849	Private N=485	t
1. Students required to participate in student assessment activities	3.77 (1.41)	3.81 (1.45)	4.02 (1.29)	3.66 (1.37)	3.58 (1.37)	2.79 (1.42)	12.34**	3.71 (1.45)	3.88 (1.34)	-2.11*
2. Students provided incentives to encourage participation in student assessment activities	1.87 (1.23)	1.72 (1.25)	2.06 (1.27)	1.91 (1.16)	1.83 (1.04)	1.87 (1.08)	3.76**	1.78 (1.19)	2.02 (1.28)	-3.25**
3. Students provided information regarding purpose and uses of student assessment	3.52 (1.41)	3.49 (1.49)	3.72 (1.34)	3.42 (1.34)	3.26 (1.32)	2.99 (1.38)	4.89**	3.48 (1.43)	3.58 (1.38)	-1.32
4. Students provided individual feedback regarding student performance results	3.21 (1.45)	3.38 (1.49)	3.25 (1.43)	2.97 (1.31)	2.66 (1.40)	2.58 (1.25)	9.31**	3.26 (1.46)	3.12 (1.43)	1.66

[a] 1=not done at all; 2=done in a few depts.; 3=done in some depts.; 4=done in many depts.; 5=done in most depts.

* $p < .05$; $p < .01$

Note: Standard deviations are in parentheses.

Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using t test for independent samples.

(1.72); they fell in the middle range on the remaining two policies. Baccalaureate institutions reported the most extensive use of policies requiring student participation (4.02), providing incentives (2.06) and informing students about the purposes of assessment (3.72), and were second only to associate of arts institutions in providing individual feedback on assessment performance (3.25). Master's and doctoral institutions reported neither the highest nor the lowest use of any of these policies. With the exception of providing incentives for participation, research institutions made the least extensive use of these policies.

6.4.2 Student Policies on Student Assessment by Institutional Control

Compared to public institutions, private institutions reported more extensive use of requirements for student participation in assessment (3.88 versus 3.71) and incentives to encourage student participation (2.02 versus 1.78). They did not differ significantly in terms of providing information on assessment purposes or individual feedback on assessment performance.

Summary. It seems that many institutions are institutionalizing student assessment by making student participation in assessment activities a requirement. The widespread use of this policy may contribute to the rather limited use of incentives for student participation. Further, it appears that institutions are providing many of their students with information about the purposes of assessment, and to a lesser extent, about their individual performance. Overall, baccalaureate institutions have made the most extensive use of student policies on assessment. This finding is consistent with their strong student development orientation. They are followed by associate of arts institutions, also an institutional type noted for its strong student orientation. Not surprisingly, given the focus of this survey on undergraduate student assessment, research institutions reported the least extensive use of these policies. Private institutions make greater use of student policies on student assessment than public institutions.

6.5 Professional Development Policies on Student Assessment

The literature has mainly focused on the importance of providing faculty with professional development opportunities related to student assessment (Banta et al., 1996; Ewell, 1988b). To a lesser extent, institutions have been encouraged to involve student affairs personnel in their assessment planning and implementation (Erwin, 1991b; Hanson, 1982). Although professional development for administrators is rarely discussed, it seems probable that those in academic leadership positions may benefit from access to workshops and seminars regarding student assessment. Respondents were asked about the extent to which a variety of professional development policies related to student assessment existed at their institutions (1=not done at all; 2=done in a few departments; 3=done in some departments; 4=done in many departments; 5=done in most departments). Mean scores for each policy are displayed in Table 6.5. ANOVAs were used to identify statistically significant differences among institutional types and *t* tests for independent samples were used to test for significant differences by institutional control.

Examining the mean scores for policy use for all institutions reveals that the most commonly used professional development policies were providing funds for faculty to attend conferences on student assessment (3.08) and offering faculty workshops or consultation on using student assessment (2.90). On average, these policies were used in some departments. Institutions were more likely to provide assessment workshops for academic administrators than for student affairs administrators (2.55 versus 2.22), and to require faculty rather than student affairs staff to receive assessment training (2.47 versus 2.22). Institutions were least likely to provide faculty various forms of concrete assistance (such as course load reductions or stipends) to encourage their use of student assessment (2.00); this practice was reported in only a few departments.

6.5.1 Professional Development Policies on Student Assessment by Institutional Type

There were statistically significant differences in the extent to which different institutional types used each of these professional development policies. Differences were greatest with respect to providing faculty with funds for assessment conference attendance and requiring faculty to receive assessment training, and were smallest with respect to providing faculty concrete assistance with using student assessment.

Table 6.5 Extent of Professional Development Policies on Student Assessment by Institutional Type and Control

	Extent Policy or Practice Exists at Institution[a]									
		Institutional Type N=1276						Institutional Control N=1338		
Professional Development Policies and Practices on Student Assessment	All N=1338	Associate of Arts N=527	Baccalaureate N=304	Master's N=306	Doctoral N=64	Research N=75	F	Public N=847	Private N=491	*t*
1. Faculty required to receive training on student assessment	2.47 (1.56)	2.76 (1.62)	2.48 (1.60)	2.19 (1.36)	1.84 (1.16)	1.51 (.93)	17.43**	2.47 (1.54)	2.48 (1.59)	-.04
2. Funds available for faculty to attend assessment conferences	3.08 (1.45)	3.41 (1.48)	3.08 (1.48)	2.85 (1.29)	2.76 (1.20)	2.05 (.90)	20.24**	3.14 (1.42)	2.98 (1.48)	2.04*
3. Workshops or consultative services on use of student assessment offered to faculty	2.90 (1.51)	3.09 (1.54)	2.71 (1.56)	2.83 (1.44)	2.92 (1.46)	2.42 (1.33)	5.32**	2.98 (1.49)	2.76 (1.55)	2.55*
4. Assistance (paid leaves, stipends, course reduction, etc.) provided to faculty to improve use of student assessment	2.00 (1.32)	2.12 (1.42)	1.89 (1.29)	1.96 (1.22)	2.15 (1.32)	1.65 (.91)	3.11*	2.10 (1.35)	1.84 (1.24)	3.44**
5. Workshops/seminars provided for academic administrators to improve use of assessment	2.55 (1.47)	2.76 (1.53)	2.39 (1.46)	2.50 (1.41)	2.42 (1.40)	2.06 (1.24)	5.97**	2.61 (1.46)	2.45 (1.49)	1.89
6. Student affairs staff required to receive training on assessment	2.22 (1.45)	2.51 (1.57)	1.94 (1.34)	2.05 (1.32)	2.13 (1.33)	1.85 (1.05)	10.48**	2.32 (1.48)	2.04 (1.40)	3.39**
7. Workshops on student assessment provided for student affairs administrators	2.22 (1.45)	2.54 (1.56)	1.87 (1.31)	2.04 (1.32)	2.00 (1.33)	2.21 (1.45)	12.77**	2.37 (1.48)	1.95 (1.37)	5.24**

[a] 1=not done at all; 2=done in a few depts.; 3=done in some depts.; 4=done in many depts.; 5=done in most depts.

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples.

With only one exception, associate of arts institutions reported the most extensive use of professional development policies. These differences were most pronounced in their greater tendency to provide faculty with funds for assessment conferences (3.41) and require faculty to receive student assessment training (2.76), and to provide assessment training for student affairs administrators and staff (2.54 and 2.51). Associate of arts institutions were only slightly less likely than doctoral institutions to provide faculty with assistance in using student assessment (2.12 versus 2.15). These responses are consistent with the tendency of associate of arts institutions to make comparatively greater use of professional development activities than other types of institutions.

Baccalaureate institutions were the least likely of all institutions to provide assessment workshops for student affairs administrators (1.87) and were second highest among institutions in their requirement for faculty to receive assessment training (2.48). Otherwise, their pattern of responses was not significantly different from those of master's institutions, an institutional type that consistently fell in the middle range of responses.

Doctoral institutions presented a more varied profile of professional development policy use. Together with associate of arts institutions, they made the greatest use of providing faculty assistance in using student assessment (2.15). On all other policies, their responses closely resembled those of master's institutions.

With the exception of providing assessment workshops to student affairs administrators, research institutions made the least extensive use of professional development policies. This finding is not unexpected given their focus on graduate rather than undergraduate education, and their generally low emphasis on institutionally-provided professional development.

6.5.2 Professional Development Policies on Student Development by Institutional Control

Significant differences in policy use existed between public and private institutions but these occurred less often and were of smaller magnitude than those observed among institutional types. Compared to private institutions, public institutions were more likely to provide assessment workshops and training for student affairs administrators (2.37 versus 1.95) and student affairs staff (2.32 versus 2.04); to provide faculty with assistance for using student assessment (2.10 versus 1.84) and assessment workshops (3.14 versus 2.98); and to a lesser extent, to have funds available for faculty to attend assessment conferences (3.14 versus 2.98). Public and private institutions did not differ in the extent to which they required faculty to undergo assessment training or in their provision of assessment workshops for academic administrators.

Summary. While professional development policies are used less frequently than student policies on student assessment, most institutions reported using them in a few to some departments. Institutions were more likely to direct these policies toward faculty than toward administrators or student affairs personnel. These differences apparently reflect the tendency of institutions to view student assessment as primarily a responsibility of academic affairs and to view faculty as playing a pivotal role in using student assessment. Institutional types differed significantly in their use of professional development policies. The most extensive use occurred within associate of arts institutions and least extensive use was within research institutions. Comparisons on the basis of institutional control showed that public institutions used most of these policies more extensively than did private institutions. This difference largely reflects the differences in policy usage between associate of arts and baccalaureate institutions.

6.6 Faculty Evaluation and Rewards Policies on Student Assessment

The use of policies regarding faculty evaluation and rewards to promote faculty involvement in student assessment is a contentious issue in the literature. On the one hand, scholars warn against linking assessment involvement or results with evaluative criteria and consequences (Banta & Associates, 1993; Duvall, 1994). On the other hand, such policies are viewed as powerful means of signaling to faculty that student assessment is a valued institutional activity (CSUITL, 1993; Jones & Ewell, 1993). Respondents indicated the extent to which a variety of evaluative and reward policies existed at their institutions (1=not done at all; 2=done in a few departments; 3=done in some departments; 4=done in many departments; 5=done in most departments). Mean scores for each policy are displayed in Table 6.6. ANOVAs were used to identify statistically significant differences among institutional types and *t* tests for independent samples were used to test for significant differences by institutional control.

Compared to policies concerning students and professional development, institutions reported much less extensive use of faculty evaluation and reward policies related to student assessment. Mean scores for all institutions showed many of these practices did not exist or were done in only a few departments. The significant exception here was the frequency with which institutions encouraged their faculty to assess student learning. This informal practice was done in many departments (3.99). Much less frequently used policies were: considering faculty scholarship on assessment in promotion, tenure or salary reviews (2.01); considering faculty participation in assessment activity in promotion, tenure or salary reviews (1.99); and considering student performance evidence in faculty promotion evaluations (1.84). Institutions were least likely to consider assessment skills when hiring faculty (1.68), to publicly recognize faculty for effectively using assessment (1.58) or to consider student performance evidence in faculty evaluations for salary and merit increases (1.56).

6.6.1 Faculty Evaluation and Reward Policies by Institutional Type

Significant differences by institutional type were found in the use of all but one of these policies. Institutions differed in the extent to which they encouraged faculty to assess student learning and considered faculty scholarship on assessment in performance reviews. Institutions did not differ significantly in their use of public recognition for faculty use of assessment.

Associate of arts institutions reported the most extensive use of three evaluation and reward policies: encouraging faculty to assess student learning (4.18); considering assessment skills when hiring faculty (1.84); and publicly recognizing faculty for using assessment (1.62). They were ranked lowest on two policies: considering faculty scholarship on assessment (1.74) or evidence of student performance (1.41) in faculty evaluations. These results are understandable in view of the lack of emphasis on faculty scholarship in associate of arts institutions and their open admissions policies. Further, associate of arts institutions rely more heavily on seniority in making retention and promotion decisions than do other institutional types.

Table 6.6 Extent of Faculty Evaluation and Reward Policies on Student Assessment by Institutional Type and Control

	Extent Policy or Practice Exists at Institution[a]										
		Institutional Type N=1273						Institutional Control N=1336		
Faculty Evaluation and Reward Policies and Practices on Student Assessment	All N=1336	Associate of Arts N=529	Bacca-laureate N=305	Master's N=303	Doctoral N=63	Research N=73	F	Public N=848	Private N=488	*t*
1. Faculty evaluation for promotion considers evidence of student performance	1.84 (1.39)	1.69 (1.35)	2.05 (1.54)	1.94 (1.34)	1.63 (1.12)	1.83 (1.29)	3.96**	1.70 (1.28)	2.08 (1.54)	-4.59**
2. Faculty evaluation for salary and merit incorporates evidence of student performance	1.56 (1.17)	1.41 (1.09)	1.67 (1.30)	1.60 (1.11)	1.57 (1.06)	1.78 (1.17)	3.74**	1.51 (1.12)	1.64 (1.25)	-1.96
3. Promotion, tenure or salary reviews consider faculty scholarship on assessment	2.01 (1.38)	1.74 (1.34)	2.27 (1.56)	2.27 (1.30)	2.24 (1.30)	1.97 (1.05)	10.79**	1.93 (1.32)	2.14 (1.47)	-2.57*
4. Promotion, tenure or salary reviews consider faculty participation in assessment	1.99 (1.41)	1.85 (1.41)	2.35 (1.60)	2.04 (1.29)	1.98 (1.15)	1.63 (.99)	7.56**	1.85 (1.30)	2.24 (1.56)	-4.56**
5. Faculty publicly recognized for effective use of assessment	1.58 (1.06)	1.62 (1.12)	1.58 (1.15)	1.58 (.96)	1.53 (.88)	1.44 (.69)	.51	1.60 (1.04)	1.56 (1.10)	.62
6. Faculty hiring process considers skill in assessment	1.68 (1.10)	1.84 (1.28)	1.66 (1.12)	1.56 (.88)	1.52 (.87)	1.33 (.53)	5.86**	1.70 (1.12)	1.65 (1.07)	.77
7. Faculty encouraged to assess student learning in classes	3.99 (1.31)	4.18 (1.23)	4.12 (1.33)	3.81 (1.25)	3.57 (1.30)	3.16 (1.31)	14.91**	3.93 (1.30)	4.10 (1.31)	-2.32*

[a] 1=not done at all; 2=done in a few depts.; 3=done in some depts.; 4=done in many depts.; 5=done in most depts.

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples.

Baccalaureate institutions used three policies more extensively than other types of institutions: considering faculty participation in assessment in promotion, tenure or salary reviews (2.35); considering faculty scholarship on assessment in promotion, tenure or salary reviews (2.27); and considering student performance evidence in promotion evaluations (2.05). They ranked second highest in their use of all other policies.

Master's institutions were tied with baccalaureate institutions in their consideration of faculty scholarship on assessment in promotion, tenure or salary reviews (2.27) and publicly recognizing faculty for effectively using assessment (1.66). Their remaining responses fell between those of baccalaureate and doctoral institutions.

Doctoral institutions reported the least extensive use of student performance evidence in faculty evaluations for promotion (1.63). Their remaining responses more closely resembled those of baccalaureate and master's institutions than associate of arts or research institutions.

Research institutions were most likely to consider student performance evidence in faculty evaluations for salary and merit increases (1.78). This surprising finding is tempered by the fact that this policy was used in none to a few departments. They ranked in the middle of all institutional types on their consideration of assessment scholarship in promotion, tenure or salary reviews (1.97) and had the lowest overall use of all other evaluation and reward policies. These responses reflect the emphasis of these institutions on research rather than teaching or student performance, and also the relative autonomy of faculty within these institutions.

6.6.2 Faculty Evaluation and Reward Policies by Institutional Control

Statistically significant differences in public and private institutions' policy use were fewer and of smaller magnitude than those observed among types of institutions. Compared to public institutions, private institutions reported greater use of the following policies: considering student performance evidence in promotion evaluation (2.08 versus 1.70); considering faculty participation in assessment in promotion, tenure or salary reviews (2.24 versus 1.85); considering faculty scholarship on assessment in promotion, tenure or salary reviews (2.14 versus 1.93); and encouraging faculty to assess student learning (4.10 versus 3.93).

Summary. Consistent with findings in prior research (Cowart, 1990; Steele & Lutz, 1995), these results indicate that institutions seldom link faculty evaluation and reward policies to student assessment. On the whole, institutions seem more willing to link evaluation decisions to faculty participation in assessment, whether in the form of scholarship or involvement in assessment activities, than to evidence of student performance. This practice is congruent with scholars' recommendations for encouraging faculty involvement in and use of student assessment (CSUITL, 1993; Ewell, 1984, 1988b). Institutional types differed in their use of various policies. Associate of arts institutions used public recognition, hiring criteria and encouragement most extensively but made comparatively little use of policies regarding faculty performance evaluation. The converse was true of baccalaureate, master's and doctoral institutions. Research institutions reported the lowest level of policy use overall. These findings mirror general differences in how various institutional types approach faculty evaluation and rewards. Private institutions reported more extensive use of these faculty policies than did public institutions.

6.7 Academic Planning and Review Policies by Institutional Type and Control

A final dimension of assessment management policies and practices discussed in the literature is that of academic planning and review. In order to encourage the use and impact of student assessment activities, scholars have recommended that institutions should link information collected through assessment with processes for making academic planning decisions (Barak & Sweeney, 1995; Ewell, 1984, 1988a, 1997). Respondents were asked to indicate the extent to which student performance data were incorporated in academic planning and review processes at the level of academic departments or undergraduate programs; general education or core curriculum; and courses, and in the review and planning of academic support services (1=not done at all; 2=done in a few departments; 3=done in some departments; 4=done in many departments; 5=done in most departments). Mean responses to these questions are presented in Table 6.7. ANOVAs were used to identify statistically significant differences among institutional types and *t* tests for independent samples were used to test for significant differences by institutional control.

Table 6.7 Extent Academic Planning and Review Policies Incorporate Assessment Data by Institutional Type and Control

	Extent Policy or Practice Exists at Institution[a]									
		Institutional Type N=1273						Institutional Control N=1336		
Institution incorporates student performance data into following academic planning and review processes	All N=1336	Associate of Arts N=526	Baccalaureate N=306	Master's N=303	Doctoral N=63	Research N=75	F	Public N=847	Private N=489	*t*
1. Academic department or undergraduate program planning or review	3.67 (1.41)	3.65 (1.46)	3.72 (1.44)	3.78 (1.26)	3.37 (1.47)	3.29 (1.36)	2.65*	3.70 (1.40)	3.63 (1.42)	.85
2. General education or core curriculum review	3.55 (1.52)	3.61 (1.51)	3.72 (1.53)	3.42 (1.52)	3.16 (1.54)	3.04 (1.40)	4.69**	3.53 (1.52)	3.59 (1.52)	-.69
3. Course-level review and development	3.36 (1.38)	3.57 (1.38)	3.28 (1.44)	3.24 (1.30)	3.02 (1.34)	2.84 (1.25)	7.60**	3.40 (1.37)	3.30 (1.41)	1.19
4. Review and planning for student academic support services	3.09 (1.43)	3.22 (1.44)	3.07 (1.50)	2.92 (1.38)	2.75 (1.29)	2.78 (1.16)	3.76**	3.10 (1.42)	3.08 (1.45)	.25

[a] 1=not done at all; 2=done in a few depts.; 3=done in some depts.; 4=done in many depts.; 5=done in most depts.

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples.

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Institutions have made quite extensive use of student performance data in academic planning decisions. Mean scores ranging from 3.09 to 3.67 show these policies existed in some to many departments. Institutions reported greatest use of student assessment information in academic planning decisions at the levels of departments and programs (3.67), general education or core curriculum (3.55), and to a lesser extent, individual courses (3.36). They reported least use of this information in planning academic support services (3.09).

6.7.1 Academic Planning and Review Policies by Institutional Type

There were differences in the extent to which varying institutional types had incorporated assessment information into academic planning processes. All were statistically significant but none were of very large magnitude.

Overall, associate of arts and baccalaureate institutions reported the most extensive use of assessment information in academic planning and review decisions. Compared to other types of institutions, associate of arts institutions reported the most extensive use of assessment information in two types of planning decisions: course-level review and development (3.57) and review and planning for academic support services (3.22). They made moderately high use of assessment information in planning general education or core curriculum (3.61) and department or program level planning (3.65).

Baccalaureate institutions reported the most frequent use of assessment information in general education or core curriculum review (3.72). They had the second highest use of assessment information in the other three planning decisions considered.

Master's institutions were the highest user of assessment information in department and program planning or review (3.72). They were neither the highest nor the lowest among the institutional types in their use of assessment information in other academic planning decisions.

Doctoral and research institutions were comparatively less likely to incorporate student assessment information into academic planning processes. Doctoral institutions made the least use of assessment information in planning academic support services (2.75) and were the next to lowest in incorporating this information in the other three planning processes. Research institutions reported the least use of assessment information in three of the four planning processes: department or undergraduate program planning or review (3.29), general education or core curriculum review (3.04), and course-level review and development (2.84). They were next to lowest in using assessment information for academic support service planning (2.78).

6.7.2 Academic Planning and Review Policies by Institutional Control

Public and private institutions did not differ significantly in their use of student assessment information in any of these academic planning processes.

Summary. Compared to policies concerning students, professional development, and especially faculty evaluation and rewards, institutions reported more extensive use of academic planning and review policies related to student assessment. Assessment information is more often incorporated into planning and review processes at the level of program or department; general education or core curriculum; and course, and is less often used in planning academic support services. There were significant differences among institutional types on all four planning processes. Associate of arts and baccalaureate institutions were most likely to link assessment information with academic planning and review while doctoral and research institutions were least likely to do so. These findings are not surprising in light of differences in these institutional types' emphases on undergraduate education. They do suggest that doctoral and research institutions are making less use of student assessment tc improve students' learning experiences. Public and private institutions did not differ in the extent to which they used assessment information in academic planning processes.

7. Institutional Uses and Impacts of Student Assessment

This chapter examines the final domain in our conceptual framework — how institutions have used student assessment information and how student assessment has impacted institutions. From the literature review, three domains of uses and impacts were identified: the use of student assessment information in institutional decision making; internal impacts that have resulted from student assessment; and external impacts that have resulted from student assessment. These domains are considered in the sections that follow. We first examine the pattern of student assessment uses and impacts for all responding institutions (research question four), and then examine variations in uses and impacts by institutional type and control (research question five).

7.1 Influence of Student Assessment Information in Institutional Decisions

The literature suggests many aspects of institutional decision making that can potentially utilize student assessment data. These include strategic decisions related to academic planning, academic organization and resource allocation, or more focused decisions regarding curriculum, instructional methods, faculty evaluation and rewards and student support services. Respondents were asked to indicate the extent to which student assessment information had influenced twelve different institutional decision areas (1=no action or influence unknown; 2=action taken, data not influential; 3=action taken, data somewhat influential; 4=action taken, data very influential). Table 7.1 presents the pattern of responses for each institutional decision for all responding institutions.

Mean scores provide a broad picture of the extent to which institutions have utilized information available from their undergraduate student assessment processes. Means ranging from 1.39 to 2.61 indicate that assessment information has had little or only limited influence on institutional decisions. Institutions most often reported that assessment had some degree of positive influence with respect to the following actions: modifying student assessment plans or processes (2.61); modifying student academic support services (2.56); designing or reorganizing academic programs or majors (2.54); modifying general education curriculum (2.47); and modifying teaching methods (2.47). To a lesser extent, institutions reported that assessment

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Table 7.1 Influence of Student Assessment Information in Institutional Decisions

	% Institutions Reporting Extent of Influence of Student Assessment Information[a] N = 1393						
Decisions regarding following institutional actions	1	2	3	4	Missing	Mean	SD
1. Revising undergraduate academic mission or goals	44.0	12.3	29.1	10.1	4.4	2.06	1.09
2. Designing or reorganizing academic programs or majors	23.8	12.1	45.2	15.1	3.9	2.54	1.03
3. Designing or reorganizing student affairs units	49.8	12.8	25.1	7.9	4.3	1.91	1.05
4. Allocating resources to academic units	49.6	18.7	23.4	3.9	4.4	1.81	.94
5. Modifying student assessment plans, policies or processes	22.7	12.3	39.5	20.6	5.0	2.61	1.07
6. Faculty promotion and tenure	67.4	13.4	12.4	1.7	5.1	1.46	.78
7. Faculty salary increases or rewards	70.4	13.4	9.8	1.3	5.2	1.39	.73
8. Modifying general education curriculum	26.0	14.5	39.2	15.8	4.5	2.47	1.06
9. Modifying student out-of-class learning experiences	36.6	17.3	32.9	8.7	4.5	2.14	1.04
10. Creating or modifying distance learning initiatives	56.1	13.8	18.4	5.5	6.2	1.72	.97
11. Modifying teaching methods	22.5	16.5	45.9	11.0	4.1	2.47	.97
12. Modifying student academic support services	22.3	14.1	43.9	16.1	3.6	2.56	1.02

[a] 1=no action or influence unknown; 2 = action taken, data not influential; 3 = action taken, data somewhat influential; 4 = action taken, data very influential

information had influenced modifications to student out-of-class learning experiences (2.14) and revisions to undergraduate academic mission or goals (2.06). Institutions were least likely to report any influence from assessment information on the following actions: designing or reorganizing student affairs units (1.91); allocating resources to academic units (1.81); creating or modifying distance learning initiatives (1.72); and particularly, faculty promotion and tenure (1.46) and faculty salary increases or rewards (1.39).

Examining the distribution of responses by response category provides a finer grained understanding of institutions' perceptions of their utilization of assessment information. Institutions most often reported five actions as having been influenced by assessment information, although a comparison of scores for each decision shows this information was much more likely to

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be somewhat influential than very influential: modifying teaching methods (45.9% and 11.0%); designing or reorganizing academic programs or majors (45.2% and 15.1%); modifying student academic support services (43.9% and 16.1%); modifying student assessment plans, policies or processes (39.5% and 20.6%); and modifying general education curriculum (39.2% and 15.8%).

Conversely, for the seven remaining actions, respondents most often reported that they had not made the decision or did not know to what extent assessment information had influenced the action or decision: faculty salary increase or reward decisions (70.4%); faculty promotion and tenure decisions (67.4%); creating or modifying distance learning initiatives (56.1%); designing or reorganizing student affairs units (49.8%); allocating resources to academic units (49.6%); revising undergraduate academic mission or goals (44.0%); and modifying student out-of-class learning experiences (36.6%).

There was little variation in the proportion of institutions reporting that assessment information had not influenced specific institutional actions. The proportion of institutions reporting that assessment data had not been influential ranged from a low of 12.1% for designing or reorganizing academic programs or majors to a high of 18.7% for allocating resources to academic units.

Summary. This pattern of responses suggests many respondents were unaware of whether assessment had been influential or not in shaping institutional actions. When specific decisions had been made and the influence of assessment data was known, respondents were much more likely to report that this information had been somewhat influential than not influential or very influential. Overall, assessment information was more likely to influence decisions regarding the assessment process itself, academic planning and classroom-based instructional practices than decisions concerning the budget, out-of-class learning experiences and faculty evaluation and rewards.

7.1.1 Influence of Student Assessment Information in Institutional Decisions by Institutional Type

Table 7.2 presents the mean scores and standard deviations of the influence of assessment information on each institutional action by institutional type and control. ANOVAs were used to identify statistically significant differences among institutional types and *t* tests for independent samples were used to test for significant differences by institutional control.

There were no statistically significant differences among the five institutional types on the assessment influences reported for three institutional actions: designing or reorganizing student affairs units; modifying teaching methods; and modifying student academic support services. The other nine actions all showed significant differences by institutional type but differences were generally not large in magnitude.

Associate of arts institutions reported the most influence from student assessment information on the following actions: modifying student assessment plans or processes (2.70), allocating resources to academic units (1.88), and creating or modifying distance learning initiatives (1.88). They were least likely among the institutional types to report assessment information influences on faculty salary increases or rewards (1.30). Remaining responses fell in the middle range among institutional types.

Compared to other institutional types, baccalaureate institutions cited the most influence from student assessment information. They were highest in reported influence on four institutional actions: modifying general education curriculum (2.57), modifying student out-of-class learning experiences (2.34), deciding faculty promotion and tenure (1.70) and faculty salary increases or rewards (1.49). They were second highest on two additional actions: designing or reorganizing academic programs or majors (2.61) and revising undergraduate academic mission or goals (2.09).

Master's institutions reported the most assessment influence among institutional types on two actions: revising undergraduate academic missions and goals (2.16) and designing or reorganizing academic programs or majors (2.67). They reported the second highest influence scores for all remaining institutional actions.

Table 7.2 Influence of Student Assessment Information in Institutional Decisions by Institutional Type and Control

	Extent of Influence of Student Assessment Information*								
	Institutional Type N=1281						Institutional Control N=1343		
Decisions regarding following institutional actions	Associate of Arts N=528	Baccalaureate N=305	Master's N=306	Doctoral N=64	Research N=78	F	Public N=850	Private N=493	*t*
1. Revising undergraduate academic mission or goals	2.06 (1.09)	2.09 (1.11)	2.16 (1.09)	1.92 (1.06)	1.51 (.82)	5.78**	2.05 (1.07)	2.07 (1.12)	-.45
2. Designing or reorganizing academic programs or majors	2.46 (1.04)	2.61 (1.05)	2.67 (.93)	2.38 (1.05)	2.33 (1.02)	3.58**	2.50 (1.02)	2.60 (1.04)	-1.77
3. Designing or reorganizing student affairs units	1.88 (1.04)	1.93 (1.09)	1.90 (1.02)	1.92 (1.07)	1.99 (1.15)	.27	1.89 (1.05)	1.94 (1.05)	-.99
4. Allocating resources to academic units	1.88 (.96)	1.77 (.95)	1.79 (.92)	1.59 (.89)	1.64 (.82)	2.41*	1.84 (.95)	1.74 (.93)	1.85
5. Modifying student assessment plans, policies or processes	2.70 (1.04)	1.55 (1.08)	2.60 (1.09)	2.56 (1.04)	2.29 (1.13)	2.90*	2.66 (1.06)	2.52 (1.10)	2.17*
6. Faculty promotion and tenure	1.36 (.73)	1.70 (.93)	1.45 (.73)	1.36 (.74)	1.32 (.58)	10.03**	1.37 (.70)	1.60 (.89)	-5.02**
7. Faculty salary increases or rewards	1.30 (.67)	1.49 (.81)	1.45 (.73)	1.34 (.72)	1.31 (.57)	4.23**	1.37 (.71)	1.42 (.75)	-1.09
8. Modifying general education curriculum	2.39 (1.06)	2.57 (1.05)	2.55 (1.04)	2.37 (1.13)	2.26 (.99)	2.75*	2.43 (1.05)	2.53 (1.08)	-1.70
9. Modifying student out-of-class learning experiences	2.00 (1.02)	2.34 (1.07)	2.22 (1.03)	2.16 (.95)	2.05 (.90)	5.92**	2.05 (1.01)	2.31 (1.07)	-4.33**
10. Creating or modifying distance learning initiatives	1.88 (1.02)	1.52 (.93)	1.70 (.94)	1.66 (.91)	1.51 (.80)	7.47**	1.86 (1.00)	1.47 (.88)	7.40**
11. Modifying teaching methods	2.51 (1.00)	2.43 (.98)	2.51 (.92)	2.38 (.96)	2.30 (.95)	1.14	2.48 (.97)	2.47 (.98)	.18
12. Modifying student academic support services	2.56 (1.01)	2.49 (1.05)	2.56 (1.00)	2.48 (1.05)	2.73 (.94)	.99	2.57 (1.02)	2.54 (1.02)	.46

*1=no action or influence unknown; 2=action taken, data not influential; 3=action taken, data somewhat influential; 4=action taken, data very influential

$p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples..

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Doctoral institutions reported comparatively less influence from student assessment. They were least likely to report that student assessment information had influenced decisions regarding resource allocations to academic units (1.59). All remaining responses were neither the highest nor lowest reported among institutional types.

Research institutions were least likely of all institutional types to report assessment influences. They reported the lowest influence on five institutional actions: designing or reorganizing academic programs or majors (2.33); modifying general education curriculum (2.26); revising undergraduate academic mission or goals (1.51); and deciding faculty promotion and tenure (1.32) and faculty salary increases or rewards (1.31). The responses of research institutions are not surprising in view of their lesser emphasis on undergraduate education.

7.1.2 Influence of Student Assessment Information in Institutional Decisions by Institutional Control

Public and private institutions differed significantly in reported influence of student assessment on four institutional actions. Public institutions reported greater assessment influence than private institutions on modifying student assessment plans or processes (2.66 versus 2.52) and creating or modifying distance learning initiatives (1.86 versus 1.47). Conversely, private institutions reported greater assessment influence than public institutions on modifying student out-of-class learning experiences (2.31 versus 2.05) and on faculty promotion and tenure (1.60 versus 1.37). This latter response mirror the greater tendency of private institutions to have faculty evaluation and reward policies related to student assessment.

Summary. The terms "most" and "least" influence must clearly be kept in context in this section. Data indicate most institutions have either not used student assessment data to guide institutional decisions or were unaware of the influence that student assessment data may have had on these actions. Responses in this section reinforce findings in the previous chapter on assessment management policies and practices. Overall, institutions have more often used student assessment information in the determination of academic planning decisions at the program or department, curriculum, and classroom levels, and less often to shape faculty evaluation and reward policies and resource allocation decisions. Baccalaureate institutions, followed by master's institutions, reported the greatest influence from student assessment data on their decisions while research institutions reported the least. Differences by institutional control were varied.

7.2 Internal Impacts of Student Assessment Information

Although extant research is sparse and conflicting, the literature suggests that information collected from student assessment efforts may lead to changes in student performance (CSUITL, 1993; Johnson et al., 1991) and faculty members' teaching-related attitudes and behaviors (Cowart, 1990; CSUITL, 1993). Respondents were asked whether they monitored the impact of student assessment information on a variety of student- and faculty-related performance indicators (1=not monitored, do not know; 2=monitored, negative impact; 3=monitored, no known impact; 4=monitored, positive impact). Table 7.3 presents the pattern of responses for each internal performance indicator for all responding institutions.

Mean scores show that few institutions have monitored the impact of student assessment information on these internal institutional indicators. This finding was most pronounced in relation to four of the selected indicators: faculty satisfaction (1.69); faculty interest in teaching (1.88); student grade performance (1.95); and student achievement on external examinations (1.97). Institutions were comparatively more likely to have monitored the impact of assessment information on teaching methods used (2.45), campus discussions of undergraduate education (2.28), student retention or graduation rates (2.20), and student satisfaction (2.03).

The distribution of responses by response category permits clearer interpretation of the meaning of these mean scores. For all the internal impacts listed, the majority of respondents reported that they had not monitored the impact of student assessment information; the percentage of institutions selecting this response category ranged from a low of 44.0% for teaching methods used to a high of 64.0% for faculty satisfaction. When institutions had monitored assessment information impacts on the indicators, negative impacts were rarely reported. Less than 5% of

Table 7.3 Internal Impacts of Student Assessment Information

	% Institutions Reporting Nature of Impact of Student Assessment Information[a] N = 1393						
Internal Impacts	1	2	3	4	Missing	Mean	SD
1. Stimulated campus discussions of undergraduate education	49.7	1.0	13.1	31.6	4.6	2.28	1.38
2. Contributed to faculty satisfaction	64.0	4.9	15.9	9.6	5.7	1.69	1.08
3. Contributed to faculty interest in teaching	62.0	1.2	13.2	18.7	5.0	1.88	1.25
4. Led to changes in teaching methods used	44.0	.2	15.0	35.8	5.0	2.45	1.39
5. Contributed to student satisfaction	54.8	.9	20.5	18.6	5.2	2.03	1.26
6. Affected student retention or graduation rates	47.2	.8	27.4	19.5	5.2	2.20	1.25
7. Affected student grade performance	55.6	.6	26.6	12.2	5.0	1.95	1.17
8. Affected student achievement on external examinations	58.0	.3	18.6	18.2	5.0	1.97	1.25

[a] 1=not monitored, do not know; 2=monitored,negative impact; 3=monitored,no known impact; 4=monitored, positive impact

respondents had documented a negative impact of assessment information on any of the internal indicators considered. On five of the eight indicators, monitoring institutions more often reported assessment information had no known impact than a positive impact. More than one-quarter of institutions reported monitoring but not observing an impact of assessment information on student retention or graduation rates (27.4%) and student grade performance (26.6%), and approximately one-fifth had not found assessment-related impacts on student satisfaction (20.5%) and student achievement on external examinations (18.6%).

Approximately one-third of respondents had documented positive impacts of assessment information on teaching methods used (35.8%) and campus discussions of undergraduate education (31.6%). Close to one-fifth reported positive impacts on student retention or graduation rates (19.5%), faculty interest in teaching (18.7%), student satisfaction (18.6%), and student achievement on external examinations (18.2%). Institutions were least likely to have documented positive impacts on student grade performance (12.2%) and faculty satisfaction (9.6%).

Summary. As has been reported elsewhere in the literature, most institutions have not monitored the impact of student assessment information on indicators of student performance and faculty attitudes and behaviors. When such monitoring has been undertaken, institutions most often report assessment information has stimulated discussions of undergraduate education and led to changes in teaching methods used. Documentation of positive impacts from assessment on direct indicators of students' academic performance is comparatively less available.

7.2.1 Internal Impacts of Student Assessment Information by Institutional Type

Table 7.4 presents the mean scores and standard deviations of the impact of assessment information on each internal indicator by institutional type and control. ANOVAs were used to identify statistically significant differences among institutional types and *t* tests for independent samples were used to test for significant differences by institutional control.

Statistically significant differences among institutional types were found on three internal impacts of student assessment information: campus discussions of undergraduate education, faculty satisfaction and student grade performance.

Baccalaureate institutions were most likely to have documented assessment impacts on campus discussions of undergraduate education (2.57), followed closely by master's institutions (2.41). Doctoral (2.17), associate of arts (2.12) and research (2.08) institutions were comparatively less likely to have monitored and observed this impact.

Baccalaureate institutions were also most likely of the institutional types to have documented the impact of assessment information on faculty satisfaction (1.88). Research institutions were again least likely to have done so (1.26). Associate of arts (1.71), master's (1.60) and doctoral (1.56) institutions were in the middle range of responses.

Somewhat surprisingly, associate of arts institutions were most likely to have documented assessment impacts on student grade performance (2.08). Four-year colleges and universities were comparatively less likely to have documented this internal impact (means ranged from 1.78 to 1.91). However, faculty satisfaction and student grade performance were the internal impacts of assessment least often documented for all types of institutions.

Table 7.4 Internal Impacts of Student Assessment Information by Institutional Type and Control

	Nature of Impact of Student Assessment Information[a]								
	Institutional Type N=1270						Institutional Control N=1330		
Internal Impacts	Associate of Arts N=529	Bacca-laureate N=303	Master's N=303	Doctoral N=65	Research N=70	F	Public N=843	Private N=487	*t*
1. Stimulated campus discussions of undergraduate education	2.12 (1.35)	2.57 (1.39)	2.41 (1.40)	2.17 (1.34)	2.08 (1.35)	6.38**	2.20 (1.35)	2.42 (1.42)	-2.82**
2. Contributed to faculty satisfaction	1.71 (1.11)	1.88 (1.14)	1.60 (1.00)	1.56 (1.02)	1.26 (.68)	5.93**	1.64 (1.05)	1.78 (1.12)	-2.16*
3. Contributed to faculty interest in teaching	1.86 (1.22)	1.98 (1.27)	1.89 (1.29)	1.75 (1.22)	1.60 (1.15)	1.61	1.86 (1.24)	1.92 (1.26)	-.84
4. Led to changes in teaching methods used	2.41 (1.39)	2.60 (1.35)	2.46 (1.42)	2.53 (1.40)	2.07 (1.39)	2.28	2.40 (1.39)	2.53 (1.38)	-1.60
5. Contributed to student satisfaction	1.99 (1.25)	2.11 (1.25)	2.04 (1.29)	1.95 (1.24)	1.90 (1.22)	.69	2.02 (1.26)	2.04 (1.25)	-.26
6. Affected student retention or graduation rates	2.24 (1.27)	2.26 (1.24)	2.15 (1.24)	2.00 (1.20)	2.07 (1.24)	1.02	2.22 (1.26)	2.17 (1.24)	.63
7. Affected student grade performance	2.08 (1.22)	1.91 (1.14)	1.80 (1.12)	1.78 (1.12)	1.81 (1.13)	3.38**	1.98 (1.19)	1.90 (1.14)	1.27
8. Affected student achievement on external examinations	2.01 (1.27)	1.99 (1.24)	1.94 (1.25)	1.98 (1.29)	1.72 (1.10)	.89	2.00 (1.27)	1.91 (1.21)	1.26

[a] 1=not monitored, do not know; 2=monitored, negative impact; 3=monitored, no known impact; 4=monitored, positive impact

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples..

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7.2.2 Internal Impacts of Student Assessment Information by Institutional Control

Only two statistically significant differences in documented internal impacts of assessment information were found between public and private institutions: campus discussions of undergraduate education and faculty satisfaction.

Compared to public institutions, private institutions had more often documented an impact of student assessment information on campus discussions of undergraduate education (2.42 versus 2.20) and faculty satisfaction (1.78 versus 1.64). The difference in documented internal assessment impacts by institutional control was more pronounced for campus discussions than for faculty satisfaction. No other statistically significant differences were observed.

Summary. There are few differences in the tendency of institutional types to have monitored and documented internal impacts from student assessment information. Baccalaureate and master's institutions were most likely to attribute an increase in campus discussions of undergraduate education to student assessment information. That research and doctoral were comparatively less likely to have documented this impact is probably reflective of their lesser emphasis on undergraduate education. Given their sole emphasis on undergraduate education, associate of arts institutions may be less likely to have monitored changes in this institutional indicator. Differences in documented impacts on faculty satisfaction and student grade performance by institutional type were statistically significant but of little practical significance; these indicators were least often monitored by all institutional types. Differences in documented internal impacts by institutional control were fewer and smaller in magnitude. For the most part, all types of institutions and those under private and public control were more similar than different in their tendency to have monitored and documented impacts of assessment information on internal indicators.

7.3 External Impacts of Student Assessment Information

The literature suggests that information collected from student assessment efforts may lead to changes in external indicators of institutional performance (Cowart, 1990; El-Khawas, 1995).

Respondents were asked whether they monitored and documented the impact of student assessment information on seven external indicators (1=not monitored, do not know; 2=monitored, negative impact; 3=monitored, no known impact; 4=monitored, positive impact). Table 7.5 presents the pattern of responses on each external performance indicator for all responding institutions.

Table 7.5 External Impacts of Student Assessment Information

	% Institutions Reporting Nature of Impact of Student Assessment Information[a] N = 1393						
External Impacts	1	2	3	4	Missing	Mean	SD
1. Affected student application or acceptance rates	74.6	.7	12.8	6.5	5.4	1.48	.97
2. Affected allocation of state funding	73.3	1.0	10.0	7.0	8.7	1.46	.96
3. Affected evaluation from regional accreditation agency	39.3	2.7	11.8	39.6	6.7	2.55	1.39
4. Affected private fund-raising results	77.9	.1	9.1	7.0	5.9	1.42	.94
5. Affected success on grant applications	69.8	.2	10.8	12.9	6.2	1.65	1.13
6. Affected communications with external constituents	67.3	.4	10.1	16.7	5.5	1.75	1.21
7. Affected institutional reputation or image	60.1	.6	13.1	20.7	5.5	1.94	1.28

[a] 1=not monitored, do not know; 2=monitored, negative impact; 3=monitored, no known impact; 4=monitored, positive impact

Mean scores show that very few institutions have monitored the impact of student assessment information on external institutional indicators. Means for assessment impacts on external indicators ranged from 1.42 to 1.94, with only one exception. Institutions were most likely to have monitored and documented the impact of assessment information on evaluations received from regional accreditation agencies (2.55). In contrast, institutions were much less likely to have documented assessment impacts on private fund raising (1.42) and student application or acceptance rates (1.48). In addition, comparatively few institutions have documented assessment impacts on state funding allocation (1.46). However, this low score reflects the fact that private institutions are included in this analysis.

The distribution of responses by response category allows clearer interpretation of these mean scores. Approximately three-quarters of respondents reported they had not monitored the impact of student assessment information on private fund-raising results (77.9%), student application or acceptance rates (74.6%), and state funding (73.3%). Three-fifths or more had not monitored assessment impacts on grant application success (69.8%), communications with external constituents (67.3%), and institutional reputation or image (60.1%).

When institutions had monitored assessment information impacts on these indicators, negative impacts were almost never reported (less than 3.0% for any external indicator considered). Institutions were quite consistent in monitoring and yet finding no external impact of assessment information; the percentage of institutions who monitored and yet reported no known assessment impacts ranged from 9.1% to 13.1% for all eight external indicators. There was greater variation in the frequency of institutions reporting positive external impacts of assessment. Institutions most often reported a documented positive impact of assessment information on regional accreditation agency evaluations (39.6%). To a lesser extent, institutions reported a positive impact on institutional reputation (20.7%). Institutions were least likely to report a positive impact from assessment information on student application or acceptance rates (6.5%) or funds received from state or private sources (7.0%).

Summary. Overall, institutions have not monitored the impacts of student assessment information on external measures of institutional performance. With one exception, over 60% of institutions reported they have not attempted to monitor any these impacts. Only a small proportion have documented positive or negative impacts. The striking exception to this general pattern concerns regional accreditation impacts. Forty percent of institutions reported that assessment information had a positive impact on regional accreditation evaluations. This finding supports the important role accorded to regional accreditors as an influence on institutions initiating and increasing their assessment efforts.

7.3.1 External Impacts of Student Assessment Information by Institutional Type

Table 7.6 presents the mean scores and standard deviations of the impact of assessment information on each external indicator by institutional type and control. ANOVAs were used to identify statistically significant differences among institutional types and t tests for independent samples were used to test for significant differences by institutional control.

Statistically significant differences among institutional types were observed on three assessment impacts on external indicators of institutional performance: student application or acceptance rates, state funding allocations and private fund raising.

Baccalaureate institutions were the most likely (1.63) and associate of arts institutions the least likely (1.40) to have documented impacts of assessment information on student application or acceptance rates, with the other institutional types again falling in the middle range of mean scores.

Research institutions were the most likely (1.66) and baccalaureate institutions the least likely (1.24) to have monitored and documented assessment impacts on state funding allocations. Associate of arts (1.55), master's (1.43) and doctoral (1.57) institutions were neither highest nor lowest in documenting impacts on this indicator.

Baccalaureate institutions were most likely to report having monitored and documented assessment impacts on private fund-raising results (1.65) and associate of arts institutions were least likely to have done so (1.28). Master's (1.44), doctoral (1.43) and research (1.41) institutions fell quite squarely in the middle of these response extremes.

These differences, particularly between baccalaureate and associate of arts institutions, are largely attributable to differences in institutional control and admissions practices. However, it must be noted that while these differences were statistically significant, all institutional types reported low rates of documenting these external impacts.

7.3.2 External Impacts of Student Assessment Information by Institutional Control

Two statistically significant differences by institutional control emerged: allocation of state funding and private fund raising. As would be expected, public institutions were more likely than private institutions to have documented an impact of assessment information of state funding allocations (1.64 versus 1.11). Conversely, private institutions were more likely than public to have documented assessment impacts on private fund-raising results (1.57 versus 1.33). Again,

Table 7.6 External Impacts of Student Assessment Information by Institutional Type and Control

	Nature of Impact of Student Assessment Information[a]								
	Institutional Type N=1257						Institutional Control N=1319		
External Impacts	Associate of Arts N=524	Baccalaureate N=299	Master's N=300	Doctoral N=64	Research N=70	F	Public N=839	Private N=480	*t*
1. Affected student application or acceptance rates	1.40 (.91)	1.63 (1.04)	1.50 (1.00)	1.44 (.94)	1.51 (.96)	2.59*	1.46 (.95)	1.53 (.99)	-1.18
2. Affected allocation of state funding	1.55 (1.05)	1.24 (.72)	1.43 (.92)	1.57 (1.06)	1.66 (1.10)	5.89**	1.64 (1.09)	1.11 (.49)	11.81**
3. Affected evaluation from regional accreditation agency	2.47 (1.40)	2.57 (1.38)	2.66 (1.40)	2.73 (1.40)	2.29 (1.35)	1.70	2.57 (1.39)	2.52 (1.40)	.57
4. Affected private fund-raising results	1.28 (.80)	1.65 (1.11)	1.44 (.96)	1.43 (.96)	1.41 (.91)	7.51**	1.33 (.85)	1.57 (1.07)	-4.17**
5. Affected success on grant applications	1.69 (1.18)	1.75 (1.18)	1.56 (1.07)	1.58 (1.11)	1.40 (.91)	2.07	1.63 (1.13)	1.67 (1.15)	-.62
6. Affected communications with external constituents	1.65 (1.15)	1.87 (1.26)	1.81 (1.26)	1.76 (1.24)	1.76 (1.20)	1.85	1.76 (1.22)	1.73 (1.20)	.51
7. Affected institutional reputation or image	1.91 (1.29)	2.04 (1.30)	1.99 (1.31)	1.71 (1.15)	1.73 (1.15)	1.57	1.97 (1.30)	1.89 (1.26)	1.08

[a] 1=not monitored, do not know; 2=monitored, negative impact; 3=monitored, no known impact; 4=monitored, positive impact

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for institutional type were estimated using one-way ANOVA. Group means for institutional control were compared using *t* test for independent samples..

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while statistically significant, these results reflected little or no attempt to monitor external impacts and differed little in practical terms.

Summary. Institutions have made fewer attempts to monitor and document the impacts of assessment information on external indicators of institutional performance than was the case for internal indicators. Some expected differences by institutional type and control were found, but these were related to external indicators that were seldom monitored by any institutions. In contrast, institutional types, both public and private, did not differ in their likelihood of documenting positive impacts of assessment information on regional accreditation evaluations. This external impact of assessment was consistently reported as the strongest.

8. Data Reduction

In chapters three through seven, we have presented descriptive profiles of the four domains from the conceptual framework: institutional approaches to student assessment, perceived external influences on student assessment, organizational and administrative support for student assessment (assessment management policies and practices were presented separately as a subsection of this domain), and institutional uses and impacts of student assessment. These analyses correspond with the first five research questions guiding the study. Analyses have focused on item variables from the survey inventory organized around these conceptual domains. Results have been reported for all respondent institutions, and separately by institutional type and control.

In the remaining chapters, we examine relationships among variables in the conceptual domains of our framework (research questions six through eight). Because of the large number of items in the survey inventory, data reduction was used to identify patterns of items in each domain and to condense the number of variables used in bivariate and multivariate analyses. The general strategy used for data reduction has already been summarized in section 2.5.2. To facilitate the reader's comprehension of the tables and discussion presented in the remaining chapters, this chapter describes the data reduction process in greater detail. Two data reduction approaches were used: factor analysis and the creation of additive indices in certain sections of the survey inventory. The new index variables produced by each data reduction approach are discussed in the next two sections.

8.1 Index Variables Derived from Factor Analysis

Factor analyses were used to identify patterns among those survey items constructed on an interval scale. Factor analysis was done in two stages. An initial factor analysis of all interval variables from across sections of the questionnaire failed to produce clear factor results; that is, items from different sections did not load together on common factors. Separate factor analyses were then conducted on items within each section of the inventory. These analysis results revealed whether a survey section was comprised of one or more content dimensions. Factors emerged in all sections of the inventory. Items were included in a factor if they met three criteria: 1) had the highest factor loading on that factor; 2) their factor loading exceeded .40; and 3) the items seemed to have content validity. The resulting factors have high Cronbach alpha reliability scores ranging from .61 to .84 and individual items have factor loadings ranging from .49 to .90. Indices were created for each factor by creating mean scores of the items loading on each factor. All factors were scaled in a positive direction. Therefore, the higher the scale value for a factor, the greater the extent to which the associated policy or practice existed at an institution. These values were used for descriptive analyses. Standardized scores for each factor index were created. A detailed description of each factor, the associated survey items, the item factor loading and the Cronbach alpha for each factor is displayed in Table 8.1. The resultant indices are discussed below by survey section.

8.1.1 Factors Related to Institutional Approach to Student Assessment

Three separate factor analyses were conducted on those sections of the inventory related to the Institutional Approach to Student Assessment domain. The results follow.

Extent by Content of Student Assessment. Three factors emerged from factor analysis of items measuring the type of content and extent of use of student assessment data collection practices: *cognitive assessment*, *affective assessment*, and *postcollege assessment*.. These factors represent the kinds of student assessment data being collected by institutions and the extensiveness (proportion of students on whom information was collected) of these data collection efforts within institutions. *Cognitive assessment* measures the extent to which institutions collect data on aspects of students' cognitive or academic performance such as general education competencies, higher-order cognitive skills and vocational or professional skills. *Affective assessment* measures the extent to which institutions collect information regarding students' affective development and their satisfaction and experiences with the institution. *Postcollege assessment* measures the extent to which institutions collect information regarding their former students' employment and educational experiences and post-enrollment relationship with the institution. Four item variables did not load

Table 8.1 Factor Analysis Results by Section of Questionnaire

Section of Survey	Factors - Variable Name*	Factor Loading	Alpha Reliability
I. Institutional Approach to Student Assessment			
A. Extent by Content	**Factor 1 - Cognitive Assessment**		.71
	IA5 competence in major field	.77	
	IA4 general education competencies	.72	
	IA3 higher-order skills	.69	
	IA6 vocational or professional skills	.69	
	Factor 2 - Affective Assessment		.68
	IA8 student experiences and involvement with institution	.81	
	IA9 student satisfaction with institution	.70	
	IA7 personal growth affective development	.68	
	Factor 3 - Postcollege Assessment		.83
	IA11 vocational or professional outcomes	.89	
	IA12 further education	.87	
	IA14 satisfaction/experiences with institution after leaving	.80	
	IA1 academic intentions		
	IA2 basic college-readiness skills		
	IA10 academic progress		
	IA13 civic/social roles of former students		
C. Other Student Assessment Methods	**Factor 4 - Student-Centered Methods**		.61
	IC3 student performance in capstone courses	.79	
	IC2 student portfolios or comprehensive projects	.77	
	IC1 observations of student performance	.56	
	IC4 student interviews or focus groups	.51	
	Factor 5 - External Methods		.63
	IC9 employer interviews or focus groups	.77	
	IC8 alumni interviews or focus groups	.74	
	IC5 transcript analysis		
	IC6 external examinations		
	IC7 surveys/interviews with withdrawing students		

*italicized questionnaire items did not load on factors

E. Student Assessment Studies	**Factor 6 - Curricular Experience Studies**		.69
	IE2 exposure to different teaching methods	.69	
	IE3 patterns of student-faculty interaction	.69	
	IE9 classroom, library and/or computing resources	.68	
	IE8 academic advising patterns	.65	
	IE1 course-taking patterns	.60	
	Factor 7 - Co-curricular Experience Studies		.70
	IE5 residence arrangements	.80	
	IE4 extra-curricular activities	.73	
	IE6 financial aid and/or employment	.70	
	IE7 admission standards or policies	.63	
II. Organizational and Administrative Support for Student Assessment			
B. Purpose of Student Assessment	**Factor 8 - Internal Purposes**		.79
	IIB4 guiding undergraduate academic program improvement	.85	
	IIB5 improving achievement of undergraduate students	.84	
	IIB6 improving faculty instructional performance	.75	
	IIB3 guiding resource allocation decisions	.71	
	IIB1 conduct for accreditation		
	IIB2 conduct for state		
IV. Assessment Management Policies and Practices			
E. Student Policies on Student Assessment	**Factor 9 - Student Involvement**		.69
	IVE3 students informed about student assessment purpose and uses	.79	
	IVE1 students required to participate in assessment activities	.75	
	IVE4 students provided individual feedback on assessment results	.75	
	IVE2 student incentives		

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F. Professional Development	**Factor 10 - Professional Development**		.77
	IVF2 funds for faculty to attend assessment conferences	.76	
	IVF3 student assessment workshops for faculty	.76	
	IVF4 faculty assistance for using assessment	.67	
	IVF5 student assessment workshops for academic administrators	.66	
	Factor 11 - Student Affairs		.84
	IVF6 assessment training required for student affairs staff	.88	
	IVF7 student assessment workshops for student affairs administrators	.87	
	IV1 faculty training required		
G. Faculty Evaluation and Rewards	**Factor 12 - Faculty Evaluation**		.77
	IVG1 promotion evaluation includes student performance	.77	
	IVG2 salary evaluation includes student performance	.76	
	IVG4 evaluation considers faculty participation in student assessment	.73	
	IVG3 evaluation considers scholarship on student assessment	.71	
	IVG5 public recognition for faculty use of assessment	.50	
	IVG6 hiring process		
	IVG7 encourage faculty to assess		
H. Academic Planning and Review	**Factor 13 - Academic Planning and Review**		.84
	IVH3 course review uses assessment data	.84	
	IVH1 department or program planning uses assessment data	.84	
	IVH2 curriculum review uses assessment data	.83	
	IVH4 academic support service planning uses assessment data	.76	

V. Uses and Impacts of Student Assessment			
A. Decision Making	**Factor 14 - Academic Decisions**		.83
	VA11 modify instructional or teaching methods	.71	
	VA2 design academic programs or majors	.69	
	VA8 revise general education curriculum	.66	
	VA9 create out-of-class learning experiences	.66	
	VA1 revise undergraduate academic mission	.64	
	VA12 modify student academic support services	.64	
	VA5 modify assessment plans or processes	.60	
	VA3 design student affairs units	.58	
	VA4 allocate resources to academic units	.57	
	VA10 create distance learning initiatives	.54	
	Factor 15 - Faculty Decisions		.79
	VA7 decide faculty salary increases	.90	
	VA6 decide faculty promotion and tenure	.90	
B. Institutional Impacts	**Factor 16 - Faculty Impacts**		.79
	VB3 faculty interest in teaching	.81	
	VB1 campus discussions of undergraduate education	.75	
	VB2 faculty satisfaction	.70	
	VB4 changes in teaching methods used	.63	
	Factor 17 - Student Impacts		.82
	VB7 student grade performance	.89	
	VB6 student retention or graduation	.83	
	VB8 student achievement on external examinations	.67	
	VB5 student satisfaction	.65	
	Factor 18 - External Impacts		.82
	VB13 success on grant applications	.77	
	VB14 communication with external constituents	.76	
	VB12 private fund-raising results	.75	
	VB15 institutional reputation or image	.66	
	VB10 allocation of state funding	.61	
	VB9 student applications or acceptance rates	.55	
	VB11 regional accreditation evaluations	.49	

on any of these factors: students' academic intentions, basic college-readiness skills, academic progress, and civic or social roles of former students. These items were retained as variables in subsequent data analyses.

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Other Student Assessment Methods. Two indices resulted from factor analyses of the section concerning institutional use of student assessment methods other than traditional tests or examinations: *student-centered methods* and *external methods*. *Student-centered methods* reflects the degree to which institutions used assessment methods that require students to demonstrate competencies or apply knowledge and skills, such as portfolios of student work, performance in capstone courses and observations of student performance. *External methods* was a two-item factor measuring the extent to which units within institutions conducted individual or group interviews with alumni or employers of students.

Student Assessment Studies. Factor analysis of the studies institutions conducted of the relationship between students' institutional experiences and students' performance produced two indices: *curricular experience studies* and *co-curricular experience studies*. *Curricular experience studies* measures the extent to which institutions study how various aspects of students' academic experiences such as exposure to different teaching methods, interaction with faculty, learning resources, academic advising, and course-taking patterns are related to students' performance. *Co-curricular experience studies* measures the extent to which institutions conduct studies of the relationship between students' performance and their non-academic experiences including residence arrangements, extra-curricular activities, admission policies, and financial aid or employment status.

8.1.2 Factors Related to Organizational and Administrative Support for Student Assessment

Factor analysis was conducted on the section of the inventory related to the Organizational and Administrative Support for Student Assessment domain.

Purpose of Student Assessment. Two factors emerged from the analysis of the intended purposes of institutions' undergraduate student assessment activities but only the first of these indices was retained. The index *internal purposes* reflects the importance of four internal institutional purposes for undertaking student assessment: guiding academic program improvement, improving student achievement, improving faculty instructional performance and guiding resource allocation decisions. Two external purposes of student assessment loaded on a separate factor: preparing an institutional self-study for accreditation and meeting state reporting requirements. However, given the conceptual distinctiveness of these items, a decision was made to keep these as separate variables in subsequent data analyses.

8.1.3 Factors Related to Assessment Management Policies and Practices

Two factor analysis approaches were used for items in the five subsections of the Assessment Management Practices section of the survey instrument. One factor analysis was done for all items in this domain and separate factor analyses were conducted for each subsection. These two approaches produced identical results. Five factors emerged: they are discussed by each subsection of assessment management policies and practices.

Student Policies on Student Assessment. *Student involvement* was a three item index that emerged in this subsection of assessment management policies and practices for student assessment. This index measures the extent to which institutions used the following policies or practices to promote student involvement in assessment activities: informing students about assessment purposes; requiring students to participate in assessment activities; and providing students with individual feedback regarding their performance on assessment measures. One item, encouraging student participation with incentives, did not load on this factor but was retained as an item variable in later data analyses.

Professional Development. Factor analysis produced two factors in this subsection. The first index, *professional development*, reflects the extent to which institutions used professional development to encourage faculty and academic administrators to support, conduct, or use results from student assessment activities. Items loading on this factor included providing faculty with funds to attend or present at conferences on student assessment, assistance for using assessment, and offering workshops on student assessment for faculty and for academic administrators. A second index, *student affairs*, measures the extent to which institutions required training on student assessment for student affairs staff or provided workshops on student assessment for student affairs administrators. One item, requiring faculty to receive training on student assessment, did not load on either factor. Compared to other items in this section, requiring training was an uncommon practice within institutions. It was retained as an item variable in later data analyses.

Faculty Evaluation and Rewards. One index emerged in this subsection. *Faculty evaluation* reflects the extent to which institutions' considered assessment-related criteria in evaluation and reward decisions for faculty. Items loading on this factor included whether promotion and salary evaluations considered evidence of student performance, whether faculty participation in or scholarship on student assessment was considered in promotion, tenure or salary reviews, and whether faculty were publicly recognized for their assessment efforts. Two items, considering assessment skills in faculty hiring decisions and encouraging faculty to assess student learning, did not load on this factor. They were retained as item variables in later data analyses.

Academic Planning and Review Policies. All four items in this section loaded on a single factor. *Academic planning and review* is an index reflecting the extent to which institutions incorporate student performance data into planning or review processes for academic departments or programs, general education or core curriculum; courses, and student academic support services.

8.1.4 Factors Related to Institutional Uses and Impacts of Student Assessment

Two separate factor analyses of the items in this domain yielded five distinct factors.

Decision Making. Two factors emerged from the analysis of this survey section: *academic decisions* and *faculty decisions*. The first, *academic decisions*, reflects the extent to which student assessment information influenced the following academic decisions: creating or modifying instructional experiences such as teaching methods, distance learning initiatives, or students' out-of-class learning experiences; developing or revising academic plans or structures such as undergraduate academic mission or goals, academic programs or majors, general education curriculum, student academic support services, or student assessment plans and processes; designing or reorganizing student affairs units; and allocating resources to academic units. *Faculty decisions* measures the extent to which student assessment information influenced institutions' decisions regarding faculty promotion and tenure and salary increases or rewards.

Institutional Impacts. Factor analysis of this section produced three factors related to the documented impact of student assessment information on various areas of institutional performance: *faculty impacts, student impacts* and *external impacts*. The first index, *faculty impacts*, reflects the extent to which student assessment information has had a positive impact on faculty satisfaction, discussions of undergraduate education, interest in teaching, and changes in teaching methods. *Student impacts* measures the extent to which student assessment information has contributed to student retention or graduation, grade performance, achievement on external examinations and satisfaction. Finally, *external impacts* concerns the extent to which institutions have documented positive impacts of student assessment information on several external indicators of institutional performance: student applications or acceptance rates, state funding, regional accreditation evaluation, private fund-raising results, grant application success, communication with external constituents, and institutional reputation or image.

8.2 Variables Derived by Summing Item Scores

Several sections of the survey inventory consisted of dichotomous or categorical variables which did not lend themselves to factor analysis. In these instances, we reduced data by summing scores within a particular section, or in some instances, across two or more related sections. The resultant additive index score indicates the number of policies or practices in existence at institutions and thus provides an indication of the extensiveness of these policies or practices. A detailed description of each index and the survey items associated with each is displayed in Table 8.2. The indices produced using this procedure are discussed below by survey inventory section.

8.2.1. Additive Indices Related to Institutional Approach to Student Assessment

Four sections of this domain of the survey inventory had categorical variables. Five additive indices of items with similar content were created.

Type, Extent and Timing of Student Assessment. Two additive indices were created in this section. *Comprehensiveness of data collection* captures the extent to which institutions collected all of the types of undergraduate student performance data listed in the survey. This is a summary

Table 8.2 Additive Indices by Section of Questionnaire

Section of Survey	Additive Index Label and Variables	Response Scoring	Possible Range of Scores
I. Institutional Approach to Student Assessment			
A. Extent by Content	**Additive Index 1 - Comprehensiveness of Data Collection = $\sum$ IA1 to IA14 response score**		
	IA1 academic intentions or expectations IA2 basic college-readiness skills IA3 higher-order skills IA4 general education competencies IA5 competence in major field IA6 vocational or professional skills IA7 personal growth affective development IA8 student experiences and involvement with institution IA9 student satisfaction with institution IA10 academic progress IA11 vocational or professional outcomes IA12 further education IA13 civic or social roles IA14 satisfaction/experiences with institution after leaving	1 = not collected 2 = collected for some students 3 = collected for many students 4 = collected for all students	14 - 56
A. Timing by Content	**Additive Index 2 - Timing of Data Collection = $\sum$ IA1 to IA9 response score**		
	IA1 academic intentions or expectations IA2 basic college-readiness skills IA3 higher-order skills IA4 general education competencies IA5 competence in major field IA6 vocational or professional skills IA7 personal growth affective development IA8 student experiences and involvement with institution IA9 student satisfaction with institution	1 = not collected 2 = collected at one point in time 3 = collected at entry and while enrolled, or while enrolled and at exit 4 = collected at entry and at exit 5 = collected at entry, while enrolled and at exit	9 - 45

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B. Student Assessment Instruments by Content and Source	**Additive Index 3 - Number of Instruments = Σ IB1 to IB10 response score** IB1 student plans, goals or expectations IB2 basic college-readiness skills IB3 higher-order skills IB4 general education competencies IB5 competence in major field IB6 vocational or professional skills IB7 personal growth and affective development IB8 student effort, experiences or involvement with institution IB9 student satisfaction with institution IB10 alumni satisfaction and experiences	1 = yes; 0 = no for each of the following sources of instruments: institutionally developed state provided commercially developed	0 - 30
E. Student Assessment Studies	**Additive Index 4 - Number of Studies = Σ IE1 to IE9 response score** IE1 course-taking patterns IE2 exposure to different teaching methods IE3 patterns of student-faculty interaction IE4 extra-curricular activities IE5 residence arrangements IE6 financial aid and/or employment IE7 admission standards or policies IE8 academic advising patterns IE9 classroom, library and/or computing resources	1 = yes 0 = no	0 - 9
F. Student Performance Profiles or Reports by Levels of Aggregation	**Additive Index 5 - Number of Reports = Σ IF1 to IF5 response score** IF1 institution wide IF2 schools or colleges IF3 academic programs or departments IF4 special populations or subgroups of students IF5 by course or groups of courses	1 = yes 0 = no	0 - 5

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II. Organizational and Administrative Support for Student Assessment			
A. Institutional Emphasis	**Additive Index 6 - Mission Emphasis = Σ IIA1a to IIA1c response score**	1 = yes 0 = no	0-3
	IIA1a emphasizes excellence in undergraduate education IIA1b identifies educational outcomes intended for students IIA1c refers to student assessment as important activity		
C. Administrative and Governance Activities	**Additive Index 7 - Administrative and Governance Activities = Σ IIC1 to IIC7 response score**	1 = yes 0 = no	0 - 7
	IIC1 annual institution-wide initiatives, forums or seminars on student assessment IIC2 rewards/incentives for administrators promoting use of student assessment IIC3 incentives for academic units to use assessment information IIC4 assessment workshops for administrators IIC5 board of trustees committee addresses assessment issues IIC6 faculty governance committee addresses assessment issues IIC7 student representation on assessment committees		
D. Support for Student Assessment	**Additive Index 8 - Administrative and Faculty Support = Σ IID2 to IID5 response score**	1 = very unsupportive 2 = somewhat unsupportive 3 = neutral, unknown 4 = somewhat supportive 5 = very supportive	4 - 20
	IID2 chief executive officer IID3 academic affairs administrators IID4 student affairs administrators IID5 faculty governance		

Additive Index 9 - Breadth of Assessment Planning Group = $\sum$ IIE3a to IIE3i response score		
	1 = yes	0 - 9
IIE3a chief executive officer	0 = no	
IIE3b academic affairs administrators/staff		
IIE3c student affairs administrators/staff		
IIE3d institutional research administrators		
IIE3e academic review and evaluation administrators		
IIE3f student assessment administrators/staff		
IIE3g faculty		
IIE3h students		
IIE3i other		
Additive Index 10 - Number Approving Changes = $\sum$ IIE5a to IIE5k response score		
	1 = yes	1 - 11
IIE5a board of trustees	0 = no	
IIE5b chief executive officer		
IIE5c chief academic affairs officer		
IIE5d chief student affairs officer		
IIE5e institutional research officer		
IIE5f academic review and evaluation officer		
IIE5g student assessment officer		
IIE5h academic senate or other faculty committee		
IIE5i faculty union		
IIE5j student government		
IIE5k other		

IV. Assessment Management Policies and Practices			
A. Resource Allocation for Student Assessment	**Additive Index 11 - Resource Allocation Practices = Σ IVA1 to IVA4 response score**		
	IVA1 explicit budget allocation for student assessment IVA2 budget process informally considers student performance indicators in academic unit resource allocation IVA3 budget process competitively allocates resources to academic units based on student performance indicators IVA4 budget process rewards academic units for improvement in student performance indicators	1 = yes 0 = no	0 - 4
	Additive Index 12 - Budget Decisions = Σ IVA3 to IVA4 response score		
	IVA3 budget process competitively allocates resources to academic units based on student performance indicators IVA4 budget process rewards academic units for improvement in student performance indicators	1 = yes 0 = no	0 - 2
B. Student Assessment Information System	**Additive Index 13 - Computer Support = Σ IVB2 to IVB4 response score**		
	IVB2 computerized student information system with student performance indicators IVB3 student information system tracks individual students IVB4 student assessment database integrated with other databases	1 = yes 0 = no	0 - 3

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C. Access to Individual Student Assessment Information	**Additive Index 14 - Access to Information = Σ IVC1 to IVC5 response score**	1 = yes 0 = no	0 - 5
	Assessment information on individual students available to: IVC1 institutional research or assessment professionals IVC2 senior academic administrators IVC3 department chairs or academic program administrators IVC4 student affairs professionals IVC5 faculty advisors		
D. Distribution of Student Assessment Reports and Studies	**Additive Index 15 - Distribution of Reports = Σ IVD1 to IVD6 response score**	1 = yes 0 = no	0 - 6
	Assessment reports regularly distributed to: IVD1 students IVD2 faculty IVD3 academic administrators IVD4 student affairs professionals IVD5 employers IVD6 general public		

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measure of institutional responses for all fourteen types of data which were summed to indicate the overall comprehensiveness of data collection efforts (1 = not collected; 2 = collected for some students; 3 = collected for many students; 4 = collected for all students). Possible index scores ranged from 14 to 56. *Timing of data collection* is an additive index that measures the total number of time points at which assessment data were being collected on currently enrolled students. Index scores indicating the number of times at which each of nine types of assessment data was collected could range from 9 to 45 (1 = not collected; 2 = collected at one point in time; 3 = collected at entry and while enrolled or while enrolled and at exit; 4 = collected at entry and at exit; 5 = collected at entry, while enrolled and at exit).

Student Assessment Instruments. An index, *number of instruments*, was created to summarize the number of student assessment instruments or tests being used by institutions. The number of instrument sources for each of ten student assessment content areas was summed to create an index for this section (1 = yes, 0 = no for each source — institutionally developed, state provided, commercially available — for each item). Possible index scores ranged from 0 to 30.

Student Assessment Studies. An index, *number of studies*, was developed to summarize the number of studies institutions had conducted on the relationship between students' institutional experiences and students' performance. Institutions could report conducting studies on up to nine aspects of students' curricular or co-curricular experiences (0 = no, 1 = yes). Possible index scores ranged from 0 to 9.

Student Performance Profiles or Reports. The additive index, *number of reports*, measures the number of levels at which student assessment data are aggregated and provided as profiles or reports of student performance. Institutions could indicate providing reports at none or all of five levels of aggregation: institution wide, schools or colleges, academic programs or departments, special populations or subgroups of students, course or groups of courses (0 = no, 1 = yes). Possible index scores ranged from 0 to 5.

8.2.1 Additive Indices Related to Organizational and Administrative Support for Student Assessment

Institutional Emphasis. The index, *mission emphasis,* reflects the extent to which institutions' mission statements explicitly emphasized undergraduate student performance and its assessment. Institutions reported whether or not their mission statement explicitly emphasized excellence in undergraduate education, identified intended educational outcomes for students, and referred to student assessment as an important institutional activity (0 = no, 1 = yes). Possible index scores ranged from 0 to 3.

Administrative and Governance Activities. The index, *administrative and governance activities,* counts the number of administrative or governance activities used by institutions to promote student assessment. Institutions reported whether they had implemented any of the following administrative activities: annual institution-wide initiatives on student assessment, rewards or incentives to administrators who promoted student assessment in their units, use of student assessment information in evaluation or improvement efforts, or assessment workshops for administrators. Further, they reported whether the board of trustees, faculty or students were represented in assessment governance (0 = no, 1 = yes). Possible index scores ranged from 0 to 7.

Support for Student Assessment. An index, *administrative and faculty support,* was created to reflect the extent to which institutions' chief executive officer, academic affairs administrators, student affairs administrators and faculty governance representatives support undergraduate student assessment activities. Support scores for each of these four constituencies (1 = very unsupportive, 2 = somewhat unsupportive, 3 = neutral or unknown, 4 = somewhat supportive, 5 = very supportive) were summed. Possible index scores ranged from 4 to 20.

Planning and Coordinating Student Assessment. Two summative indices were developed in this survey section to reflect the breadth of internal representation involved in developing and changing assessment plans and policies. *Breadth of assessment planning group* sums the number of four functional areas and five internal constituent groups represented on institutions' committees or groups for student assessment planning and policy setting. Possible index scores ranged from 0 (meaning no such group or committee existed) to 9. *Number approving changes* is an index that summarizes the number of five functional areas or six internal constituent groups involved in approving changes in institutions' plans or policies for student assessment (0 = no, 1 = yes). Possible index scores ranged from 1 to 11.

8.2.2 Additive Indices Related to Assessment Management Policies and Practices

Four sections of the domain of Assessment Management Policies and Practices had categorical variables. Seven additive indices were created to represent these sections.

Resource Allocation for Student Assessment. Two summative indices were created to measure the nature of resource allocation policies or practices developed by institutions to support the collection and use of student assessment information. *Resource allocation practices* is the more inclusive of the two. This index sums the total number of resource allocation practices reported by institutions. It includes having an explicit internal budget allocation for student assessment, informally considering student assessment information in resource allocation to academic units, using student assessment information to competitively allocate resources to academic units, and rewarding academic units for improvement based on past student performance indicators (0 = no, 1 = yes). Possible index scores ranged from 0 to 4. The second index, *budget decisions*, reflects whether institutions had formally used student assessment information in the budget process, either to competitively allocate resources among academic units or to reward units for improvements relative to past student performance indicators (0 = no, 1 = yes). Possible index scores ranged from 0 to 2.

Student Assessment Information System. The index, *computer support*, reflects the capacity of institutions to collect and manage student assessment information. Institutions reported whether they had student information systems that included student performance indicators, could track individual students, and had student data integrated with other institutional databases (0 = no, 1 = yes). Possible index scores ranged from 0 to 3.

Access to Individual Student Assessment Information. An index, *access to information*, was created to measure the breadth of internal accessibility of assessment information on individual students. Institutions reported whether such information was available to institutional researchers, senior academic administrators, department chairs or program administrators, student affairs professionals or faculty advisors (0 = no, 1 = yes). Possible index scores ranged from 0 to 5.

Distribution of Student Assessment Reports and Studies. The index, ***distribution of reports***, counts the number of constituent groups to whom student assessment reports were regularly distributed. Potential recipients included students, faculty, academic administrators, student affairs professionals, employers and the general public (0 = no, 1 = yes). Possible index scores ranged from 0 to 6.

8.3 Summary of Data Reduction

This data reduction has reduced the number of item variables in the survey inventory from 256 item variables to 33 indices. Thirteen items which did not load on any factor but were deemed important were also retained. Table 8.2 identifies these consolidated variables and retrieved items organized by the domains in our conceptual framework. These indices and individual items constitute the variables for our relational analyses in chapters nine, ten and eleven.

9. Relationship of External Influences to Institutional Student Assessment Patterns

In chapter four, we reported institutions' *perceptions* of state and regional accreditation influences on student assessment. In this chapter, we use data from the NCPI research project on State Policies and Regional Accreditation Practices of Assessment for Student Learning (Cole et al., 1997) regarding state governance structures, state-level approaches to student assessment and information concerning regional accrediting practices to more objectively examine the relationship of state and regional accreditation activities to institutions' student assessment patterns (research question six). We begin by considering state influences, first presenting descriptive information concerning selected dimensions of state governance and state approaches to student assessment. We then examine how these dimensions are related to four institutional domains: (1) approaches to student assessment; (2) organizational and administrative support for student assessment; (3) assessment management policies and practices and (4) utilization and impacts of student assessment. Lastly, we examine the relationship between institutions' regional accreditation affiliation and these four institutional domains.

9.1 State Approaches to Student Assessment

States vary widely in their approaches to student assessment (Aper, 1993; Aper et al., 1990; Boyer et al., 1987; Ewell, 1993). On the basis of our literature review, we identified several conceptual dimensions of state-level assessment approaches that may influence institutions' student assessment efforts. Project 5.1 of NCPI analyzed documents provided by state officials to discern characteristics and patterns of state-level assessment approaches (Cole et al., 1997). Into our survey database, we merged data from Project 5.1 regarding state governance structures for higher education and two dimensions of state approaches to student assessment: form of student assessment initiative, and standardization of student assessment indicators and outcomes. Table 9.1 displays the distribution of these student assessment approach dimensions across states.

Table 9.1 Number and Percentage of States[1] with:

A. Differing Governance Structures for Higher Education

Consolidated Governing		Coordinating Regulatory		Coordinating Advisory		Planning Agency		Total	
N	%	N	%	N	%	N	%	N	%
20	39%	21	41%	4	8%	6	12%	51	100

B. Differing Initiatives for Student Assessment[2]

Combination of Policy & Statute		State Statute		State Policy		No State Plan		Total	
N	%	N	%	N	%	N	%	N	%
8	17%	13	28%	21	46%	4	9%	46	100

C. Common Institutional Indicator and Outcomes Requirements[3]

Common for All		Common for Some		Institutional Specific		No Indicators or Outcomes		Total	
N	%	N	%	N	%	N	%	N	%
15	34%	8	18%	12	27%	9	20%	44	100%

[1] Includes District of Columbia

[2] Five states did not provide information on this question.

[3] Seven states did not provide information on this question.

McGuinness, Epper and Arredondo (1994) developed a continuum of state governance structures for higher education, arrayed here in descending order of authority: consolidated governing boards; coordinating boards with regulatory authority; coordinating boards with advisory capacity; and planning agencies. As Table 9.1-A reveals, states are far more likely to have governance structures with greater rather than lesser degrees of authority over higher education matters. Eighty percent of states have either a consolidated governing board or a coordinating board with regulatory authority. Considerably fewer have planning agencies (12%) or coordinating boards with advisory capacity (8%).

State-level student assessment initiatives (see Table 9.1-B) may take the form of a statute established by the state legislature, a policy developed by a state higher education governing board or planning agency, or a combination of legislative statutes and non-legislative policies. In close to half of respondent states (46%), student assessment initiatives were in the form of policies developed by state-level higher education officials. Slightly more than a quarter of states (28%) have statutes concerning student assessment. A combination of policy and statute has been used by 17% of states. Four states (9%) reported they did not have a state plan for student assessment.

States vary in the extent to which they have standardized the student performance indicators or outcomes institutions must report (see Table 9.1-C). States may require the use of a common slate of student performance indicators or outcomes for all institutions, may permit institutions to devise and report on institutionally-specific indicators or outcomes, or may use a combination of state-selected and institutionally-selected indicators or outcomes for some or all of their institutions. Of the forty-four states who responded to this question, one-third (34%) require the reporting of common student performance indicators or outcomes by all institutions. Approximately one-quarter (27%) of states permit institutionally-devised indicators or outcomes. Twenty percent of institutions either did not have a student assessment initiative or did not require institutions to report any student performance indicators and outcomes. Finally, 18% of institutions required some institutions (generally, a specific type of institution) to report common student performance indicators or outcomes.

To examine patterns of state approaches to student assessment, we analyzed the relationships among these three state level dimensions. For these analyses, we restricted our sample to public institutions.

Form of Assessment Initiative by State Governance Structure. Table 9.2 displays the relationship between state governing structures for higher education and form of student assessment initiative. Overall, public institution respondents were most likely to be located in states with a state-level initiative for student assessment in the form of a policy (38.9%). To a lesser extent, institutions experienced initiatives in the form of a statute (31.5%) or a combination of statute and policy (21.3%). Less than ten percent (8.4%) of public institutions reported no state-level student assessment initiative in place.

Table 9.2 Percentage of Public Institutions with Assessment Initiatives by State Governance Structure

		State Governance Structure (46 states)[a]				
Initiative for Student Assessment	All Inst. N=682	Consolidated Governing N=205	Coordinating Regulatory N=351	Coordinating Advisory N=81	Planning Agency N=45	Chi-Square
1. Combination of statute & policy	21.3	7.8	34.8	8.6	–	555.51**
2. Statute	31.5	32.2	26.8	67.9	–	
3. Policy	38.9	60.0	38.5	–	15.6	
4. No state plan for assessment	8.4	–	–	23.5	84.4	

** $p < .01$

[a] Five states did not provide information on their assessment plan.

However, there were statistically significant differences in the form of student assessment initiative in existence by type of state governing structure for higher education. All institutions in states with consolidated governing boards or coordinating regulatory boards were subject to some form of student assessment initiative. Institutions in states with consolidated governing boards were most likely to have state assessment initiatives in the form of a policy (60%) and to a lesser extent, in the form of a statute (32.2%). Less than ten percent (7.8%) had initiatives that combined statute and policy. Institutions in states with coordinating regulatory boards for higher education were almost equally likely to have state initiatives in the form of a policy (38.5%) or combination of statute and policy (34.8%); approximately one-quarter (26.8%) had a state-level statute related to student assessment. States with coordinating advisory boards were the most likely of all types of governance structures to legislate student assessment requirements (67.9% of institutions). Almost one-quarter (23.5%) of institutions in states with coordinating advisory boards had no state initiative for student assessment and less than ten percent (8.6%) had a state initiative that combined statute and policy. Finally, institutions in states with a planning agency for higher education were most likely of all governance structures to have no state initiative for student assessment (84.4%). When such initiatives did exist, they were in the form of a policy (15.6%).

Common Indicators/Outcomes by State Governance Structure. Table 9.3 displays the relationship between state governing structures and their emphasis on common student indicators.

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Table 9.3 Percentage of Public Institutions with Common Indicators/Outcomes by State Governance Structure

Indicators & Outcomes	All Inst. N=750	State Governance Structure (44 states)[a]				
		Consolidated Governing N=243	Coordinating Regulatory N=344	Coordinating Advisory N=110	Planning Agency N=53	Chi-Square
1. Common for all	31.5	10.7	42.4	56.4	17.0	362.59**
2. Common for some	26.6	42.4	20.9	20.0	-	
3. Institutional specific	27.8	35.4	33.7	-	3.8	
4. No indicators or outcomes	14.1	11.5	2.9	23.6	79.2	

**$p < .01$

[a] Seven states did not provide information on their indicators or outcomes.

Slightly less than one-third (31.5%) of public institutions had state-level assessment initiatives mandating common student performance indicators or outcomes for all institutions. Approximately one-quarter of institutions were in states requiring the reporting of institutionally-specific indicators or outcomes (27.8%) or some common indicators or outcomes (26.6%). Fourteen percent of institutions were in states that did not have a student assessment initiative or did not require the reporting of student performance indicators or outcomes.

There were statistically significant differences in the standardization of assessment indicators and outcomes by the form of state governing structure for higher education. Compared to institutions in states with other types of governing structures, institutions with consolidated governing boards were most likely to have to report some state-mandated common indicators or outcomes (42.4%) or institutionally-specific indicators or outcomes (35.4%), and were least likely to have indicators or outcomes common to all institutions (10.7%).

Institutions in states with coordinating regulatory boards were least likely to have no state initiative for student assessment or no requirements for reporting student performance indicators or outcomes (2.9%). They were almost as likely as institutions in states with consolidated governing boards to report institutionally-specific indicators or outcomes (33.7%) and were second highest in having indicators or outcomes common to all (42.4%) or some (20.9%) institutions. More than half of institutions (56.4%) in states with coordinating advisory boards had to report indicators or outcomes that were common to all state institutions; none reported institutionally-specific indicators or outcomes. Almost one-quarter (23.6%) either had no state-level assessment initiative or requirements to report indicators or outcomes. More than three-quarters (79.2%) of institutions in states with planning agencies for higher education had no state requirement to report indicators or outcomes. When such requirements existed, they were more likely to be common across all institutions (17.0%) than common for some (0%) or institutionally-specific (3.8%).

Common Indicators/Outcomes by Form of Assessment Initiative. Table 9.4 displays the relationship between the form of state assessment initiative and their use of common indicators.

Table 9.4 Percentage of Public Institutions with Common Indicators & Outcomes by State Initiative for Student Assessment

Indicators & Outcomes	All Inst. N=609	State Initiative for Student Assessment (44 states)[a]				
		Policy & Statute N=103	State Statute N=203	State Policy N=246	No State Plan N=57	Chi-Square
1. Common for all	31.5	30.1	54.7	20.3	–	568.31**
2. Common for some	26.6	42.7	41.4	13.8	–	
3. Institutional specific	27.8	27.2	–	56.5	3.5	
4. No indicators or outcomes	14.1	–	3.9	9.3	96.5	

** $p < .01$

[a] Seven states did not provide information on their indicators or outcomes.

There were statistically significant differences in the standardization of assessment indicators and outcomes and the form of state initiative for student assessment. States utilizing a combination of policy and statute in their assessment initiative always had some form of requirement for reporting indicators or outcomes. They were most likely to require some common indicators or outcomes (42.7%) and made moderately high use of indicators/outcomes that were common for all institutions (30.1%) and institutionally-specific (27.2%). States using statutes to embody assessment requirements were most likely of all forms of initiatives to have common indicators for all institutions (54.7%), made moderately high use of some common indicators (41.4%) and did not permit institutions to select and report their own indicators and outcomes. Conversely, states with policies for student assessment were most likely to permit the reporting of institutionally-specific indicators and outcomes (56.5%) and made little use of common indicators (13.8% common for some; 20.3% common for all). As would be expected, virtually all states

(96.5%) without any form of state initiative for assessment had no requirements for reporting student performance indicators or outcomes.

Summary. Clear differences emerged in the occurrence and form of state-level student assessment initiatives by type of state governance structure for higher education. There was a positive relationship between the authority invested in the higher education governance structure and the likelihood of having a state-level initiative for student assessment. States with coordinating regulatory boards had a mixed array of assessment initiatives, while those with consolidated governing boards relied heavily on policies, those with coordinating advisory boards most often used legislative means, and those with planning agencies generally had no initiative in place.

Similarly, there was a positive relationship between having to report student performance indicators or outcomes, whether state-mandated or institutionally-devised, and the authority of the higher education governance structure. States with consolidated governing boards were more likely than those with other governance structures to mandate some common indicators or outcomes or to permit institutionally-specific indicators or outcomes to be reported. States with coordinating advisory boards made the greatest use of common indicators for all institutions. Again, states with coordinating regulatory boards were more varied in their reporting requirements and those with planning agencies seldom required any indicators or outcomes from institutions.

States using purely legislative means (statute only) to direct student assessment initiatives mandated common performance indicators or outcomes for all or some institutions. Those with state-level policies more often permitted institutionally-specific indicators or outcomes. States using a combination of policy and statute fell in the middle range of having standardized or institutionally-specific assessment indicators or outcomes.

Finally, some patterns across all three dimensions of state assessment approaches are apparent. States utilizing a consolidated governing board for higher education were most likely to have policies regarding student assessment and to permit institutionally-specific indicators or outcomes to be reported. States with coordinating regulatory boards showed two main patterns, either having a combination of statute and policy and requiring common indicators or outcomes for some or all institutions, or establishing student assessment policies and permitting institutionally-specific indicators or outcomes. States with coordinating advisory boards for higher education most often enacted statutes regarding student assessment and mandated common indicators or outcomes for all institutions. States with planning agencies for higher education were unlikely to have any form of initiative or indicators/outcomes for student assessment in postsecondary institutions.

9.2 State Assessment Approaches and Institutional Approaches to Student Assessment

We now examine how the three state assessment dimensions discussed above (governance structure for higher education, form of assessment initiative, standardization of indicators and outcomes) relate to the following dimensions of institutions' student assessment approaches: extent of student assessment data collected; student assessment data collection methods; and student assessment studies and reports produced. The tables in this section show mean scores for each institutional assessment approach dimension. ANOVAs were used to identify statistically significant differences among dimensions of state assessment approaches.

9.2.1 State Assessment Approaches and Extent of Student Assessment

The extent of institutions' data collection efforts for student assessment was represented by scores on three factors (cognitive assessment, affective assessment and postcollege assessment), three single variables that did not load on these factors (academic intentions, academic progress and civic/social roles of former students) and two additive indices (comprehensiveness of data collection and timing of data collection).

Extent of Student Assessment by State Governance Structure. Mean scores and standard deviations for each of these extent dimensions for all public institutions by state governance structure for higher education are displayed in Table 9.5. The mean scores for all institutions restate the profile of student assessment data collection reported in chapter three (see Tables 3.1 and 3.2). Institutions most often collected information regarding current students' academic intentions (3.22) or academic progress (3.70) and least often collected information regarding

Table 9.5 Extent of Student Assessment in Public Institutions by State Governance Structure for Higher Education

Extent of Student Assessment Data Collection:		State Governance Structure (51 states including DC)				
Type, Comprehensiveness and Timing	All Institutions N=885	Consolidated Governing N=255	Coordinating Regulatory N=467	Coordinating Advisory N=110	Planning Agency N=53	F
1. Academic intentions	3.22 (.97)	3.22 (.97)	3.18 (.99)	3.24 (.96)	3.43 (.84)	1.08
2. Academic progress	3.70 (.59)	3.62 (.62)	3.72 (.58)	3.74 (.58)	3.80 (.46)	2.20
3. Cognitive assessment	1.62 (.57)	1.63 (.55)	1.69 (.57)	1.27 (.52)	1.68 (.54)	16.86**
4. Affective assessment	1.74 (.49)	1.79 (.49)	1.75 (.50)	1.58 (.46)	1.69 (.43)	4.92**
5. Civic or social roles	1.55 (.78)	1.47 (.69)	1.62 (.85)	1.44 (.65)	1.53 (.75)	2.90*
6. Postcollege assessment	2.27 (.59)	2.27 (.56)	2.35 (.59)	1.96 (.62)	2.28 (.45)	13.70**
7. Comprehensiveness of data collection	35 (7)	35 (7)	36 (7)	32 (6)	36 (6)	13.27**
8. Timing of data collection	18 (4)	19 (4)	19 (4)	17 (4)	19 (4)	5.17**

*$p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for governance structure were estimated using one-way ANOVA.

affective competencies (1.74), cognitive competencies such as higher order skills (1.62) and the civic/social roles held by former students (1.55). On average, institutions collected data at two time points during students' enrollment.

There were statistically significant differences among state governance structures for six of the eight student assessment measures, although three were of little practical significance. Overall, institutions in states with coordinating regulatory boards collected the most extensive assessment data, ranking highest on five of six measures for which there were significant differences by governance structure. These institutions collected the most extensive information on cognitive (1.69) and postcollege competencies (2.35), including social/civic roles (1.62); were second highest in collecting data on affective competencies (1.75); and had the highest index scores for comprehensiveness (36) and timing (19) of data collection. In contrast, institutions in states with coordinating advisory boards had the least extensive data collection efforts. They ranked lowest on all six measures for which there were significant differences. Institutions in states with consolidated governing boards and planning agencies fell between these two extremes of extensiveness of data collection; their scores more closely approximated those associated with coordinating regulatory boards than coordinating advisory boards.

Extent of Student Assessment by Form of Assessment Initiative. Table 9.6 displays mean scores and standard deviations for the extent of public institutions' data collection efforts by form of state initiative for student assessment.

Table 9.6 Extent of Student Assessment in Public Institutions by State Initiative for Student Assessment

Extent of Student Assessment Data Collection: Type, Comprehensiveness and Timing	All Institutions N=682	State Initiative for Student Assessment (46 States Including DC)				
		Policy & Statute N=144	State Statute N=215	State Policy N=265	No State Plan N=57	F
1. Academic intentions	3.24 (.95)	3.27 (.89)	3.36 (.92)	3.10 (.99)	3.39 (.90)	3.66*
2. Academic progress	3.70 (.58)	3.68 (.59)	3.76 (.57)	3.67 (.59)	3.75 (.56)	1.13
3. Cognitive assessment	1.64 (.56)	1.74 (.53)	1.56 (.58)	1.65 (.56)	1.60 (.57)	3.07*
4. Affective assessment	1.75 (.49)	1.76 (.51)	1.81 (.50)	1.71 (.47)	1.64 (.40)	2.41
5. Civic or social roles	1.54 (.78)	1.61 (.86)	1.51 (.80)	1.51 (.73)	1.54 (.73)	0.55
6. Postcollege assessment	2.28 (.58)	2.33 (.57)	2.27 (.65)	2.27 (.55)	2.27 (.48)	0.51
7. Comprehensiveness of data collection	35 (7)	36 (6)	35 (7)	35 (7)	35 (5)	1.66
8. Timing of data collection	19 (4)	19 (4)	18 (4)	19 (5)	18 (4)	1.73

* $p < .05$
Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

There were only two statistically significant differences in mean scores for data collection by form of student assessment initiative, and these were of relatively small magnitude. Institutions differed in the extent to which they collected data regarding student academic intentions. Institutions with no state-level initiative for student assessment collected the most extensive data of this kind (3.39), followed by those in states with assessment statutes (3.36), a combination of policy and statute (3.27) and finally, those with student assessment policies (3.10). Mean scores for collecting data on students' cognitive competencies were low for all forms of student assessment initiatives. In relative terms, institutions in states with a combination of policy and statute collected the most extensive cognitive data (1.74), followed by those with policies only (1.65), with no state-level initiative (1.60) and with statute only (1.56).

Extent of Student Assessment by Common Indicators/Outcomes. Table 9.7 displays mean scores and standard deviations for the extent of public institutions' data collection efforts by state reporting requirements.

Table 9.7 Extent of Student Assessment in Public Institutions by State Requirement for Common Indicators and Outcomes

Extent of Student Assessment Data Collection:		State Indicators and Outcomes Requirement (44 States Including DC)				
Type, Comprehensiveness and Timing	All Institutions N=750	Common for All N=243	Common for Some N=197	Institution Specific N=204	No Indicators or Outcomes N=106	F
1. Academic intentions	3.24 (.95)	3.11 (1.02)	3.28 (.91)	3.32 (.89)	3.30 (.94)	2.28
2. Academic progress	3.70 (.58)	3.81 (.48)	3.61 (.66)	3.66 (.60)	3.70 (.60)	4.10**
3. Cognitive assessment	1.62 (.56)	1.51 (.60)	1.63 (.53)	1.72 (.53)	1.64 (.55)	5.09**
4. Affective assessment	1.75 (.49)	1.71 (.51)	1.75 (.49)	1.80 (.48)	1.73 (.46)	1.06
5. Civic or social roles	1.56 (.79)	1.64 (.88)	1.47 (.70)	1.53 (.79)	1.61 (.70)	1.71
6. Postcollege assessment	2.28 (.60)	2.22 (.65)	2.26 (.56)	2.34 (.60)	2.30 (.50)	1.41
7. Comprehensiveness of data collection	35 (7)	34 (7)	35 (7)	36 (7)	36 (6)	1.43
8. Timing of data collection	19 (4)	18 (4)	19 (4)	19 (5)	18 (5)	2.33

**$p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

There were only two statistically significant differences in the extensiveness of data collection by state requirements for reporting student performance indicators or outcomes. These concerned the collection of data on students' academic progress and cognitive competencies. Institutions in states with common indicators or outcomes for all institutions collected the most extensive data on students' academic progress (3.81). They were followed by institutions with no specified indicators or outcomes (3.70), those permitted to report institutionally-specific indicators/outcomes (3.66) and those required to report some common indicators/outcomes (3.61). This pattern was somewhat reversed for the extent of collecting data on students' cognitive competencies. Institutions permitted to report institutionally-specific indicators/outcomes were most likely to collect cognitive data (1.72); institutions with no indicators/outcomes (1.64) and those with some common indicators (1.63) fell in the mid-range, while institutions in states with common indicators/outcomes for all institutions were least likely to collect this data (1.51).

Summary. Coordinating regulatory boards were associated with the most extensive student assessment data collection efforts among institutions and coordinating advisory boards with the least extensive efforts. Fewer but interesting differences in patterns of data collection were evident among forms of assessment initiatives and requirements for reporting indicators or outcomes. Institutions more often collected data on student intentions when there was no state assessment initiative or when a statute was in place. Institutions in states with assessment policies or a combination of policy and statute were more likely to collect data concerning students' cognitive performance. Institutions with common indicators/outcomes or no indicators/outcomes were most likely to collect academic progress data while those with institutionally-specific indicators or some common indicators were most likely to collect cognitive data. Data on students' academic intentions and progress are fairly easy for institutions to collect and for state-level officials to compare across institutions while data on students' cognitive performance are more complex to collect and more difficult to use as a basis for inter-institutional comparisons. It is understandable that state assessment approaches that are more formalized (based on statutes) and standardized (have common indicators for all institutions) would be more likely to include measures of intentions and progress, while those that are less formalized (comprised wholly or partially of policies) and more institution-centered (permit institutionally-specific indicators) would be more likely to encourage the collection of cognitive data.

9.2.2 State Assessment Approaches and Student Assessment Data Collection Methods

Institutions' methods of collecting student assessment data were represented by scores on two factors (student-centered methods and external methods), three variables that did not load on these factors (transcript analysis, external examinations and surveys/interviews of withdrawing students) and an additive index of the number of assessment instruments used (comprehensive tests or examinations from institutional, state or commercial sources).

Data Collection Methods by State Governance Structure. Mean scores and standard deviations for each of these methods for all public institutions by state governance structure for higher education are displayed in Table 9.8.

Table 9.8 Student Assessment Data Collection Methods in Public Institutions by State Governance Structure for Higher Education

		State Governance Structure (51 States Including DC)				
Data Collection Methods	All Institutions N=868	Consolidated Governing N=252	Coordinating Regulatory N=460	Coordinating Advisory N=109	Planning Agency N=53	F
1. Number of instruments	9 (4)	9 (3)	10 (4)	8 (3)	10 (4)	11.20**
2. Transcript analysis	2.12 (1.10)	2.19 (1.15)	2.10 (1.09)	1.97 (1.03)	2.25 (1.04)	1.30
3. External examinations	2.06 (.44)	2.08 (.43)	2.11 (.46)	1.82 (.41)	2.04 (.19)	13.90**
4. Surveys/interviews of withdrawing students	2.21 (.93)	2.33 (.96)	2.16 .89)	2.04 (.97)	2.39 (.90)	3.91**
5. Student-centered methods	1.30 (.28)	1.30 (.27)	1.32 (.28)	1.23 (.26)	1.33 (.28)	2.79*
6. External methods	2.06 (.58)	2.11 (.59)	2.07 (.58)	1.90 (.49)	2.16 (.60)	4.17**

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for governance structure were estimated using one-way ANOVA.

In relative terms, institutions made fairly extensive use of comprehensive tests or examinations (assessment instruments) as a means of collecting student assessment data and limited use of alternative methods of assessment. Those alternative methods with the highest mean scores (surveys/interviews of withdrawing students, transcript analysis, external examinations and methods) were only used in some institutions or departments within institutions (mean scores just above 2.0).

Statistically significant differences among state governance structures were found for five of the six data collection methods considered in this analysis. The most striking profile was that associated with having a coordinating advisory board for higher education. Compared to institutions with other forms of governance structures, these institutions made the lowest use of assessment instruments (8), external examinations (1.82), surveys/interviews of withdrawing students (2.04), student-centered methods (1.23) and external methods (1.90). In contrast, institutions with planning agencies as their state governance structure had the highest means for three of these five methods (2.39 for surveys/interviews with withdrawing students, 1.33 for student-centered methods and 2.16 for external methods) and were tied with coordinating regulatory boards for using the most assessment instruments (10). Institutions with coordinating regulatory boards had the highest use of external examinations (2.11). This exception aside, institutions with coordinating regulatory boards and with consolidated governing boards made slightly less use of data collection methods than institutions with planning agencies, but greater use than institutions with coordinating advisory boards.

Data Collection Methods by Form of Assessment Initiative. Mean scores and standard deviations for each of these methods for all public institutions by state assessment initiative are displayed in Table 9.9. There were two statistically significant differences in mean scores for data collection methods used by form of student assessment initiative, and these were relatively small. Institutions with no state assessment initiative and with a combination of policy and statute used an average of ten assessment instruments while those with initiatives in the form of a policy or statute used nine. Institutions with state assessment initiatives comprised of a combination of policies and statutes, policies alone, or with no with state initiative for assessment made comparatively greater use (1.35, 1.34 and 1.32 respectively) of student-centered methods than institutions with state statutes for assessment (1.27).

Table 9.9 Student Assessment Data Collection Methods in Public Institutions by State Initiative for Student Assessment

Data Collection Methods	All Institutions N=673	State Initiative for Student Assessment (46 States Including DC)				
		Policy & Statute N=141	State Statute N=215	State Policy N=262	No State Plan N=57	F
1. Number of instruments	9 (4)	10 (4)	9 (3)	9 (3)	10 (4)	5.23**
2. Transcript analysis	2.13 (1.09)	2.01 (1.01)	2.08 (1.09)	2.24 (1.16)	2.02 (.97)	1.76
3. External examinations	2.07 (.58)	2.07 (.52)	2.02 (.63)	2.11 (.57)	2.12 (.53)	1.32
4. Surveys/interviews of withdrawing students	2.23 (.93)	2.15 (.86)	2.16 (.93)	2.30 (.96)	2.43 (.94)	2.05**
5. Student-centered methods	1.32 (.27)	1.35 (.25)	1.27 (.26)	1.34 (.28)	1.32 (.27)	3.98**
6. External methods	2.07 (.58)	3.07 (.52)	2.02 (.63)	2.11 (.57)	2.12 (.53)	.98

** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

Data Collection Methods by Common Indicators/Outcomes. Mean scores and standard deviations for each of these methods for all public institutions by state reporting requirements for are displayed in Table 9.10. There were only two statistically significant differences in the data collection methods used by institutions with different state requirements for reporting student performance indicators or outcomes. Institutions with no requirements to report indicators or outcomes and those permitted to report institutionally-specific indicators/outcomes made the more extensive use of surveys/interviews of withdrawing students (2.50 and 2.23 respectively) and used the greatest number of assessment instruments (10). Institutions required to report all or some common indicators/outcomes made comparatively less use of surveys/interviews of withdrawing students (2.07 and 2.19 respectively) and used one less assessment instrument (9).

Summary. Having a coordinating advisory board was associated with the lowest mean use of student assessment data collection methods. This parallels results reported in the previous section, in which this governance structure was related with the least extensive collection of student

Table 9.10 Student Assessment Data Collection Methods in Public Institutions by State Requirement for Common Indicators and Outcomes

Data Collection Methods	All Institutions N=740	State Indicators and Outcomes Requirement (44 States Including DC)				
		Common for All N=241	Common for Some N=193	Institution Specific N=202	No Indicators or Outcomes N=105	F
1. Number of instruments	9 (4)	9 (4)	9 (4)	10 (4)	10 (3)	3.05*
2. Transcript analysis	2.12 (1.10)	2.09 (1.09)	2.04 (1.09)	2.19 (1.15)	2.18 (1.07)	.77
3. External examinations	2.05 (.43)	2.02 (.52)	2.07 (.41)	2.03 (.35)	2.09 (.42)	.69
4. Surveys/interviews of withdrawing students	2.21 (.92)	2.07 (.90)	2.19 (.84)	2.23 (.95)	2.50 (.99)	5.34**
5. Student-centered methods	1.30 (.28)	1.27 (.27)	1.31 (.27)	1.31 (.28)	1.32 (.28)	1.50
6. External methods	2.07 (.57)	2.02 (.57)	2.04 (.58)	2.12 (.57)	2.18 (.53)	2.41

** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

data. Somewhat surprisingly, institutions with planning agencies made the greatest use of data collection methods, while institutions with consolidated governing boards and coordinating regulatory boards fell in the upper mid-range of mean use scores. There was little practical difference in the number of comprehensive tests or examination instruments used among institutions with different forms of state assessment initiatives. However, institutions with state statutes made the least use of student-centered methods. The use of these more complex assessment methods has been encouraged in the assessment literature because they have the potential to provide richer information concerning student performance and may contribute more to the improvement of teaching and learning practices. However, compared to tests and surveys, these methods are more labor intensive and require greater faculty involvement. The use of statutes, reflective of a more formalized or centralized state assessment approach, appears to be less conducive to institutions making use of these student-centered methods. Finally, institutions reporting institutionally-specific student indicators or outcomes and those with no requirement to

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report indicators/outcomes were more likely to conduct surveys and interviews with withdrawing students.

9.2.3 State Assessment Approaches and Assessment Studies and Reports

Institutions must do more than simply collect student data. In order for data to prove useful for informing institutional practices, they must be analyzed and then presented in some form of report. The nature and extent of assessment studies and reports conducted by institutions were represented by scores on two factors (curricular experience studies and co-curricular experience studies), a single variable that did not load on these factors (conducts no studies) and two additive indices of the number of assessment studies conducted and number of assessment reports written.

Studies and Reports by State Governance Structure. Mean scores and standard deviations of study and report variables for all public institutions by state governance structure for higher education are displayed in Table 9.11.

Table 9.11 Student Assessment Studies and Reports in Public Institutions by State Governance Structure for Higher Education

Studies and Reports	All Institutions N=872	State Governance Structure (51 States Including DC)				
		Consolidated Governing N=251	Coordinating Regulatory N=461	Coordinating Advisory N=108	Planning Agency N=52	F
1. Number of studies	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	.183
2. Curricular experience studies	.14 (.18)	.14 (.17)	.14 (.18)	.14 (.19)	.10 (.16)	.894
3. Co-curricular experience studies	.18 (.22)	.17 (.22)	.18 (.22)	.18 (.22)	.21 (.24)	.493
4. Conducts no studies	.40 (.49)	.41 (.49)	.39 (.49)	.38 (.49)	.40 (.50)	.143
5. Number of reports	3 (1)	2 (1)	3 (1)	3 (1)	3 (1)	5.74**

** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for governance structure were estimated using one-way ANOVA.

Overall, institutions did little in terms of examining the relationship between various aspects of students' institutional experiences and student performance. On average, institutions studied relationships between two aspects of students' institutional experiences and performance but a large proportion of institutions conducted no such studies (40%).

There was little variation in the studies and reports conducted by institutions in states with different governance structures for higher education. The only statistically significant difference concerned the number of reports written. Institutions in states with consolidated governing boards produced one less report (2), on average, than institutions in states with other forms of higher education governance (3).

Studies and Reports by Form of Assessment Initiative. As Table 9.12 reveals, there was little variation in institutional activity in this domain by the form of state assessment initiative. Institutions in states with policies concerning student assessment produced one less report (2) than institutions in states with other forms of state assessment initiatives (3).

Table 9.12 Student Assessment Studies and Reports in Public Institutions by State Initiative for Student Assessment

Studies and Reports	All Institutions N=674	State Initiative for Student Assessment (46 States Including DC)				
		Statute & Policy N=143	State Statute N=213	State Policy N=262	No State Plan N=56	F
1. Number of studies	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	1.48
2. Curricular experience studies	.14 (.17)	.16 (.18)	.14 (.17)	.14 (.17)	.10 (.14)	1.81
3. Co-curricular experience studies	.19 (.22)	.22 (.24)	.17 (.22)	.18 (.22)	.20 (.22)	1.31
4. Conducts no studies	.38 (.49)	.35 (.48)	.39 (.49)	.40 (.49)	.34 (.48)	.40
5. Number of reports	3 (1)	3 (1)	3 (2)	2 (1)	3 (1)	3.70*

* $p < .05$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

Studies and Reports by Common Indicators/Outcomes. Table 9.13 displays mean scores and standard deviations of study and report variables for all public institutions by state reporting requirements for student assessment. The only statistically significant difference that emerged was, again, related to the number of assessment reports produced. Institutions in states that required the reporting of some common student indicators or outcomes produced one less report

(2) than institutions in states with common, institutionally-specific, or no required indicators/outcomes (3).

Table 9.13 Student Assessment Studies and Reports in Public Institutions by State Requirement for Common Indicators and Outcomes

		State Indicators and Outcomes Requirement (44 States Including DC)				
Studies and Reports	All Institutions N=737	Common for All N=241	Common for Some N=193	Institution Specific N=199	No Indicators or Outcomes N=104	F
1. Number of studies	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	.45
2. Curricular experience studies	.14 (.18)	.14 (.18)	.14 (.18)	.16 (.19)	.12 (.16)	1.00
3. Co-curricular experience studies	.18 (.22)	.19 (.23)	.17 (.22)	.18 (.23)	.18 (.21)	.22
4. Conducts no studies	.39 (.49)	.39 (.49)	.43 (.50)	.36 (.48)	.39 (.49)	.68
5. Number of reports	3 (1)	3 (1)	2 (2)	3 (1)	3 (1)	3.12*

* $p < .05$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

Summary. Overall, "student assessment studies and reports" is a dimension of institutions' student assessment approach that is largely unrelated to state-level assessment approaches. In large part, this lack of association is due to the very low frequency with which institutions have conducted relational analyses of student assessment data and institutional experiences or have produced reports of student assessment results. However, the lack of relationship may also be partly attributable to the nature of the analyses and reports referred to in this dimension. These studies and reports are most likely to be produced solely for internal consumption and thus would be unaffected by external influences.

9.2.4 Summary of State Assessment Approaches and Institutional Approaches to Student Assessment

Compared to the form of state assessment initiative and requirements for common indicators and outcomes, state governance structures for higher education accounted for greater variation in the extent of student assessment data collected and the use of data collection methods.

The presence of a coordinating advisory board for higher education was associated with the least extensive institutional approach to student assessment. The exclusive use of statutes to frame state assessment initiatives and having no state assessment initiative were both associated with less extensive collection of data on students' cognitive competencies, less use of student-centered assessment methods and greater use of intentions and academic progress as measures of students' performance. These latter measures are more easily collected and compared among institutions. Permitting institutionally-specific indicators/outcomes was positively associated with collecting data on cognitive competencies. The opposite was true for institutions in states requiring common indicators/outcomes of all institutions. Finally, there was little connection between state assessment approaches and internal assessment studies and reports produced by institutions.

9.3 State Assessment Approaches and Organizational/Administrative Support for Student Assessment

In the following sections, we examine how the three state assessment-level dimensions (governance structure for higher education, form of assessment initiative, standardization of indicators and outcomes) relate to two domains of organizational and administrative support for student assessment: institutional support strategy for student assessment; and patterns of leadership and governance. The tables in this section show mean scores for specific dimensions within each of these institutional domains. ANOVAs were used to identify statistically significant differences among dimensions of state assessment approaches.

9.3.1 State Assessment Approaches and Institutional Support Strategy for Student Assessment

We examined the relationship of state assessment approaches to two dimensions of institutions' internal support strategies: the extent to which the mission statement emphasized student assessment and institutions' purposes for conducting student assessment (internal purposes, accreditation self-study, state requirements).

Institutional Support Strategy by State Governance Structure. Mean scores and standard deviations for each institutional support strategy dimension for all public institutions by state governance structure for higher education are displayed in Table 9.14.

Table 9.14 Institutional Support Strategy for Student Assessment in Public Institutions by State Governance Structure for Higher Education

Institutional Support Strategy for Student Assessment	All Institutions N=875	State Governance Structure (51 States Including DC)				
		Consolidated Governing N=251	Coordinating Regulatory N=464	Coordinating Advisory N=109	Planning Agency N=53	F
1. Mission emphasis	1.48 (.90)	1.47 (.93)	1.55 (.89)	1.37 (.86)	1.17 (.81)	3.50*
2. Conduct for internal purposes	2.48 (.51)	2.53 (.47)	2.49 (.52)	2.37 (.51)	2.43 (.49)	2.85*
3. Conduct for accreditation	3.59 (.67)	3.65 (.60)	3.58 (.67)	3.50 (.80)	3.66 (.62)	1.67
4. Conduct for state	3.29 (.95)	3.32 (.95)	3.45 (.83)	2.84 (1.15)	2.77 (1.05)	18.33**

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for governance structure were estimated using one-way ANOVA.

Institutions gave moderate emphasis to student assessment in their mission statements (1.48). Accreditation self-study was the most important purpose reported for student assessment (3.59), followed closely by meeting state requirements (3.29) and to a lesser extent, internal purposes (2.48). These results for assessment purposes differ somewhat from those reported in chapter four (section 4.1.2). In the present analysis, internal purpose was measured with a factor encompassing four components: internal resource allocation, academic program improvement, student achievement, and faculty instructional performance. The first of these, resource allocation, received the lowest importance ranking as a single item. Its inclusion in this factor, although conceptually sound, depressed the overall score for this construct.

Institutions, grouped on the basis of their higher education governance structure, differed little in the importance they accorded to accreditation as an assessment purpose. There were statistically significant differences in these groups on the other three strategy dimensions: mission emphasis, internal purposes and state requirements. Differences were most pronounced for the importance rating given to state requirements as a purpose for assessment. Importance scores were positively associated with governing structure authority. That is, institutions in states with coordinating regulatory boards and consolidated governing boards gave higher importance ratings to state requirements (3.45 and 3.32) than institutions in states with coordinating advisory boards

(2.84) and planning agencies (2.77). Almost the same pattern existed for internal improvement as an assessment purpose, although the magnitude of differences was much smaller. Institutions in states with consolidated governing boards gave internal purposes the highest importance rating (2.53) followed by coordinating regulatory boards (2.49), planning agencies (2.43) and coordinating advisory boards (2.37). Similarly, institutions in states with coordinating regulatory boards and consolidated governing boards gave greater emphasis to assessment in their mission statements (1.55 and 1.47 respectively) than those with coordinating advisory boards and planning agencies (1.37 and 1.17 respectively).

Institutional Support Strategy by Form of Assessment Initiative. Table 9.15 displays means scores and standard deviations for each institutional support strategy dimension for all public institutions by form of state initiative for student assessment.

Table 9.15 Institutional Support Strategy for Student Assessment in Public Institutions by State Initiative for Student Assessment

		State Initiative for Student Assessment (46 States Including DC)				
Institutional Support Strategy for Student Assessment	All Institutions N=675	Policy & Statute N=144	State Statute N=213	State Policy N=261	No State Plan N=57	F
1. Mission emphasis	1.51 (90)	1.58 (.90)	1.57 (.89)	1.47 (.93)	1.30 (.87)	1.84
2. Internal purposes	2.48 (.49)	2.53 (.47)	2.47 (.50)	2.48 (.50)	2.36 (.48)	1.71
3. Accreditation purposes	3.59 (.67)	3.57 (.64)	3.62 (.67)	3.57 (.68)	3.67 (.66)	.48
4. State purposes	3.28 (.95)	3.39 (.89)	3.43 (.89)	3.22 (.96)	2.75 (1.12)	8.73**

** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

The only statistically significant difference observed among institutions with different forms of state assessment initiatives concerned the importance rating for state requirements as an assessment purpose. As may be expected, institutions with legislated forms of state initiatives (statute, and combination of statute and policy) identified state reporting requirements as a more important purpose for assessment (3.43 and 3.39) than did institutions from states with assessment policies only (3.22). Institutions without any form of state assessment initiative gave state requirements the lowest importance score (2.75).

Institutional Support Strategy by Common Indicators/Outcomes. Mean scores and standard deviations for each institutional support strategy dimension for all public institutions by state reporting requirements for assessment are displayed in Table 9.16.

Table 9.16 Institutional Support Strategy for Student Assessment in Public Institutions by State Requirements for Common Indicators and Outcomes

Institutional Support Strategy for Student Assessment	All Institutions N=742	Indicators and Outcomes (44 States Including DC)				
		Common for All N=241	Common for Some N=194	Institution Specific N=203	No Indicators or Outcomes N=106	F
1. Mission emphasis	1.48 (.90)	1.58 (.92)	1.37 (.86)	1.49 (.91)	1.45 (.92)	1.96
2. Internal purposes	2.48 (.50)	2.44 (.51)	2.48 (.51)	2.53 (.47)	2.46 (.48)	1.32
3. Accreditation purposes	3.59 (.67)	3.49 (.73)	3.60 (.63)	3.63 (.67)	3.71 (.59)	3.07*
4. State purposes	3.25 (.97)	3.14 (1.01)	3.37 (.91)	3.46 (.82)	2.90 (1.13)	9.97**

$^*p < .05$, $^{**}p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

The importance of state requirements as an assessment purpose varied significantly among institutions grouped on the basis of state reporting requirements for student indicators or outcomes. Somewhat unexpectedly, institutions permitted to use institutionally-specific indicators/outcomes gave the highest importance ratings to state requirements (3.46) followed by institutions in states using some common indicators/outcomes (3.37) and, to a lesser degree, those from states requiring common indicators/outcomes across all institutions (3.14). As would be expected, institutions not required to report any indicators or outcomes gave the lowest importance rating to state requirements (2.90). This pattern was reversed somewhat for institutions' ratings of the importance of accreditation review as a purpose for student assessment. Here, institutions without any state requirements for indicators/outcomes gave the highest importance rating to accreditation requirements (3.71) followed by institutions in states permitting institutionally-specific indicators or outcomes (3.63), those required to report some common indicators/outcomes (3.60) and those from states requiring common indicators/outcomes of all institutions (3.14).

Summary. A positive relationship existed between the authority of state governance structures and the strength of institutions' assessment support strategy. Institutions in states with planning agencies and coordinating advisory boards consistently had the lowest scores on support strategy dimensions while those with coordinating regulatory and consolidated governing boards had the highest scores. Differences were greatest for the importance given to state requirements as a purpose for student assessment. Institutions in states using legislative assessment approaches identified state requirements as a more important purpose than those from states with policies or no form of assessment initiative. There was an inverse relationship between the extent to which states mandated indicators/outcomes to be reported by institutions and institutions' perceptions of state requirements as an important purpose for doing student assessment. The less institutions were required to report state-mandated student performance indicators or outcomes, the greater the importance rating they gave to accreditation self-study as an assessment purpose.

9.3.2 State Assessment Approaches and Institutional Leadership/Governance for Student Assessment

We examined the relationship of state assessment approaches to three dimensions of institutions' leadership and governance patterns for student assessment: the institution-wide administrative and governance activities used to promote student assessment; degree of administrative and faculty support for student assessment; and the structure and process of planning and policy setting for assessment.

Institutional Leadership/Governance for Assessment by State Governance Structure. Mean scores and standard deviations for each leadership and governance dimension for all public institutions by state governance structure for higher education are displayed in Table 9.17.

On average, institutions had introduced two or three (2.33) of seven institution-wide activities to promote student assessment. Faculty and administrators were perceived as being somewhat to very supportive of student assessment (17.18). Half of public institutions had a formal centralized policy regarding student assessment (a formally adopted plan or policy specifying undergraduate student assessment activities of all academic programs or units). Over two-thirds (.69) used an institution-wide group to establish assessment policy, with an average of four members per group. On average, three institutional positions or groups had approval authority for changes in assessment plans.

Table 9.17 Assessment Leadership and Governance in Public Institutions by State Governance Structure for Higher Education

Assessment Leadership and Governance	All Institutions N=876	State Governance Structure (51 States Including DC)				
		Consolidated Governing N=253	Coordinating Regulatory N=462	Coordinating Advisory N=108	Planning Agency N=53	F
1. Administrative and governance activities	2.33 1.20)	2.28 (1.21)	2.35 (1.21)	2.37 (.51)	2.43 (.49)	.30
2. Administrative and faculty support	17.18 (2.54)	17.30 (2.38)	17.30 (2.48)	16.52 (2.85)	17.02 (2.95)	2.99*
3. Formal centralized student assessment policy	.51 (.50)	.51 (.50)	.57 (.50)	.28 (.45)	.49 (.50)	10.10**
4. Institution-wide group setting policy	.69 (.46)	.68 (.47)	.70 (.46)	.69 (.46)	.68 (.47)	.06
5. Breadth of assessment planning group	4 (2)	4 (2)	4 (2)	4 (1)	4 (1)	.98
6. Number approving changes	3 (1)	3 (1)	3 (1)	3 (2)	2 (1)	1.46
7. No student assessment policy	n/a	n/a	n/a	n/a	n/a	n/a

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for governance structure were estimated using one-way ANOVA.

There were statistically significant differences in two dimensions of assessment leadership and governance among institutions with different state governance structures for higher education. Institutions in states using a coordinating regulatory board for higher education governance were most likely to have a formal centralized institutional policy for student assessment (.57) followed by institutions in states with consolidated governing boards (.51) and planning agencies (.49). Institutions in states with coordinating advisory boards were much less likely to have this form of assessment policy (.28). There were significant, but smaller, differences in reported administrative and faculty support for student assessment. Institutions in states with consolidated governing or coordinating regulatory boards reported the highest levels of support (17.30); those with state planning agencies reported comparatively lower support (17.02) and those with coordinating advisory boards reported the least faculty and administrative support (16.52).

Institutional Leadership/Governance for Assessment by Form of Assessment Initiative. Table 9.18 displays mean scores and standard deviations for dimensions of assessment leadership and governance in public institutions by state assessment initiative. Only one statistically significant difference emerged in leadership/governance dimensions among institutions with different forms of state assessment initiatives. Institutions in states using a combination of policy and statute and those in states using policy as an assessment initiative reported a higher degree of administrative and faculty support for student assessment (17.66 and 17.32 respectively) than did institutions in states using a statute only for assessment (17.09). Institutions with no state plan for assessment reported the lowest degree of administrative and faculty support (16.71).

Table 9.18 Assessment Leadership and Governance in Public Institutions by State Initiative for Student Assessment

Assessment Leadership and Governance	All Institutions N=677	State Initiative for Student Assessment (46 States Including DC) Policy & Statute N=143	State Statute N=214	State Policy N=264	No State Plan N=56	F
1. Administrative and governance activities	2.35 (1.20)	2.28 (1.22)	2.31 (1.29)	2.39 (1.12)	2.48 (1.18)	.44
2. Administrator and faculty support	17.27 (2.40)	17.66 (2.09)	17.09 (2.57)	17.32 (2.28)	16.71 (2.80)	2.64*
3. Formal centralized policy	.50 (.50)	.59 (.49)	.45 (.50)	.50 (.50)	.46 (.50)	2.42
4. Institution-wide planning group	.70 (.46)	.67 (.47)	.65 (.48)	.75 (.43)	.67 (.47)	2.21
5. Breadth of assessment planning group	4 (2)	4 (2)	4 (2)	4 (1)	4 (1)	1.87
6. Number approving changes	3 (1)	3 (1)	3 (2)	2 (1)	2 (1)	2.17

*$p < .05$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

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Institutional Leadership/Governance for Assessment by Common Indicators/Outcomes. Mean scores and standard deviations for assessment leadership and governance dimensions in public institutions by state reporting requirements for assessment are displayed in Table 9.19. Only two statistically significant differences in assessment leadership and governance were evident among institutions compared on the basis of state reporting requirements for common student performance indicators/outcomes Institutions permitted to report institutionally-specific indicators/outcomes were more likely to have a formal centralized assessment policy (.59) than institutions with no specified indicators/outcomes (.49) or those required to report some common indicators/outcomes (.49). Institutions in states requiring all institutions to report common indicators/outcomes were least likely to have a formal centralized assessment policy (.42). Institutions in states requiring the reporting of some or all common indicators/outcomes utilized one more individual to approve changes to the institutional student assessment plan than institutions required to report institutionally-specific or no student indicators/outcomes (3 versus 2).

Table 9.19 Assessment Leadership and Governance in Public Institutions by State Requirements for Common Indicators and Outcomes

Assessment Leadership and Governance	All Institutions N=742	State Indicators and Outcomes Requirement (44 States Including DC)				
		Common for All N=241	Common for Some N=193	Institution Specific N=203	No Indicators or Outcomes N=105	F
1. Administrative and governance activities	2.36 (1.22)	2.33 (1.22)	2.37 (1.24)	2.35 (1.21)	2.44 (1.19)	.17
2. Administrator and faculty support	17.23 (2.50)	17.06 (2.66)	17.31 (2.35)	17.37 (2.41)	17.21 (2.57)	.62
3. Formal centralized policy	.49 (.50)	.42 (.50)	.49 (.50)	.59 (.49)	.49 (.50)	3.96**
4. Institution-wide planning group	.71 (.46)	.68 (.47)	.69 (.46)	.75 (.43)	.71 (.45)	.92
5. Breadth of assessment planning group	4 (2)	4 (2)	4 (1)	4 (2)	4 (1)	2.40
6. Number approving changes	3 (1)	3 (2)	3 (2)	2 (2)	2 (1)	2.85*

$^*p < .05$, $^{**}p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

Summary. There was a positive relationship between the use of authoritative governance structures at the state level (consolidated governing and coordinating regulatory boards) and the use of formal centralized assessment policies at the institutional level. Findings also suggest the use of more authoritative state governance structures for higher education is not antithetical to internal institutional support for student assessment. Beyond the form of governance structure used, it seems that less directive or standardized state approaches may be more conducive to promoting institutional support for student assessment. The use of policies to frame state assessment initiatives, alone or in combination with statutes, was more often associated with institutional support for assessment than was the exclusive use of statutes or having no form of initiative. Similarly, permitting institutions to develop their own indicators/outcomes to report, rather than mandating them, was related to institutions establishing formal centralized assessment policies.

9.4 State Assessment Approaches and Assessment Management Policies and Practices

In this section we examine the relationships among the three state-level dimensions (governance structure for higher education, form of assessment initiative, standardization of indicators and outcomes) and the assessment management policies and practices used by institutions. The following dimensions of assessment management policies and practices were considered in these analyses: institutional evaluation of student assessment plan; resource allocation practices; access to assessment information; distribution of assessment reports; student involvement policies; professional development policies; faculty evaluation and reward policies; and academic planning and review policies. ANOVAs were used to identify statistically significant differences in the use of these policies/practices among dimensions of state assessment approaches.

Assessment Management Policies and Practices by State Governance Structure. Table 9.20 displays the mean scores and standard deviations related to the use of these assessment management policies and practices for all public institutions by state governance structure.

Half (.51) of public institution respondents had formally or informally evaluated their student assessment plan or approach. Institutions made minimal use of resource allocation practices to support student assessment (1.21); as discussed in chapter five, these practices have

Table 9.20 Assessment Management Policies and Practices in Public Institutions by State Governance Structure for Higher Education

Assessment Management Policies and Practices	All Institutions N=866	State Governance Structure (51 States Including DC)				
		Consolidated Governing N=247	Coordinating Regulatory N=446	Coordinating Advisory N=109	Planning Agency N=52	F
1. Conducted evaluation of assessment approach	.51 (.50)	.49 (.50)	.54 (.50)	.47 (.50)	.48 (.50)	1.03
2. Resource allocation practices	1.21 (.49)	1.17 (.48)	1.23 (.51)	1.17 (.38)	1.24 (.44)	.79
3. Access to information	3.51 (1.66)	3.46 (1.72)	3.63 (1.61)	3.20 (1.67)	3.36 (1.78)	2.32
4. Distribution of reports	2.52 (1.43)	2.51 (1.42)	2.63 (1.46)	2.24 (1.39)	2.13 (1.11)	3.50*
5. Student involvement policies	2.65 (.88)	2.70 (.84)	2.70 (.89)	2.36 (.89)	2.62 (.82)	4.48**
6. Student incentives	1.78 (1.19)	1.68 (1.17)	1.85 (1.23)	1.85 (1.19)	1.63 (.93)	1.41
7. Professional development policies	1.94 (.80)	1.89 (.81)	1.98 (.83)	1.79 (.64)	2.16 (.72)	3.12*
8. Faculty training required	2.47 (1.54)	2.55 (1.55)	2.52 (1.55)	2.00 (1.33)	2.63 (1.68)	3.76*
9. Student affairs policies	2.05 (1.21)	2.15 (1.25)	2.02 (2.21)	1.94 (1.11)	2.08 (1.19)	.98
10. Faculty evaluation policies	1.18 (.61)	1.17 (.65)	1.22 (.61)	1.08 (.58)	1.11 (.59)	1.83
11. Hiring process	1.70 (1.12)	1.78 (1.17)	1.72 (1.15)	1.42 (.75)	1.78 (1.15)	2.67*
12. Encourage faculty to assess	3.93 (1.30)	3.90 (1.32)	4.04 (1.24)	3.38 (1.41)	4.19 (1.22)	8.28**
13. Academic planning and review policies	2.80 (.96)	2.87 (1.00)	2.85 (.96)	2.49 (.89)	2.64 (.80)	4.83**

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences in group means for governance structure were estimated using one-way ANOVA.

more often taken the form of having an explicit budget allocation for assessment than using assessment results to make internal resource allocation decisions. Institutions gave quite liberal access to assessment information concerning individual students (3.51) but were fairly narrow in their range of internal distribution of student assessment reports or studies (2.52). Institutions made the most extensive use of policies to incorporate assessment information into academic planning and review processes at a variety of levels (2.80). Policies to encourage student involvement in assessment activities were also used quite widely within institutions (2.65) with the exception of offering incentives (1.78). Institutions were slightly more likely to provide professional development to student affairs staff or administrators (2.05) than to faculty members (1.94). Between a few and some departments required faculty to have training in student assessment (2.47). Faculty evaluation and reward policies were not commonly used. While institutions reported wide use of encouragement for faculty to assess student learning (3.93), few departments considered assessment skills when hiring faculty (1.70) and almost none considered assessment participation, scholarship or student performance among evaluative criteria for faculty (1.18).

Comparisons of the extent of institutional use of assessment management policies/practices on the basis of their state governance structure for higher education revealed statistically significant differences in seven dimensions: distribution of assessment reports; student involvement; professional development; requiring faculty training in assessment; considering assessment skills in hiring; encouraging faculty to assess; and academic planning and review. With little exception, these differences reflected the significantly less extensive use of policies/practices among institutions in states with coordinating advisory boards compared to institutions in states with the other three types of governance structures.

Institutions in states using planning agencies for higher education made the most extensive use of assessment management policies and practices overall. They scored highest on providing professional development in assessment for faculty (2.16), requiring faculty training in assessment (2.63), considering assessment skills when hiring faculty (1.78) and encouraging faculty to assess student learning (4.19). They fell in the mid-range of student involvement policies (2.62) and using assessment data for academic planning and review (2.64), and had the lowest distribution of assessment reports (2.13).

In comparison to institutions with planning agencies at the state level, institutions with consolidated governing boards and coordinating regulatory boards made slightly less use of these assessment management policies and practices. Institutions with consolidated governing boards reported the most extensive use of policies to encourage student involvement (2.70), consider assessment skills in faculty hiring decisions (1.78) and incorporate assessment data in academic planning and review processes (2.87), and were in the upper mid-range of distribution of assessment reports (2.70), professional development for faculty (1.89), faculty training (2.55), and the encouragement of faculty to assess student learning (3.90).

Institutions with coordinating regulatory boards had a similarly strong profile of policy use. They scored highest on two policies — distributing assessment reports (2.63) and encouraging student involvement (2.70) and were neither highest nor lowest in offering professional development for faculty (1.98), requiring faculty training in assessment (2.52), considering assessment skills when hiring faculty (1.72), encouraging faculty to assess student learning (4.04), and using assessment data in academic planning and review processes (2.85).

Institutions with coordinating advisory boards had the lowest reported use on six of seven items for which there were statistically significant differences: student involvement policies (2.36), offering professional development for faculty (1.79), requiring faculty training in assessment (2.00), considering assessment skills when hiring faculty (1.42), encouraging faculty to assess student learning (3.38) and using assessment data in academic planning or review processes (2.49). They were second lowest in terms of distributing assessment reports (2.24).

Assessment Management Policies and Practices by Form of Assessment Initiative. Table 9.21 displays mean scores and standard deviations for assessment management policies and practices in public institutions by form of state initiative for student assessment.

Statistically significant but small differences were observed in the use of two assessment management policies and practices by institutions with different forms of state assessment initiatives: student affairs policies and the use of assessment data in academic planning and review processes. In both instances, institutions with no state initiative for assessment had the lowest use scores (1.80 and 2.50 respectively). Use scores for states with statutes, policies, and a combination of policies and statutes for assessment were comparatively higher and more closely clustered together. Institutions with statutes for assessment reported the most extensive provision

Table 9.21 Assessment Management Policies and Practices in Public Institutions by State Initiative for Student Assessment Plan

	State Initiative for Student Assessment (46 States Including DC)					
Assessment Management Policies and Practices	All Institutions N=668	Policy & Statute N=142	State Statute N=213	State Policy N=257	No State Plan N=56	F
1. Conducted evaluation of assessment approach	.52 (.50)	.54 (.50)	.59 (.49)	.46 (.50)	.50 (.50)	2.51
2. Resource allocation practices	1.21 (.48)	1.25 (.54)	1.24 (.49)	1.16 (.44)	1.19 (.40)	.93
3. Access to information	3.51 (1.66)	3.42 (1.71)	3.57 (1.66)	3.55 (1.61)	3.29 (1.79)	.62
4. Distribution of reports	2.60 (1.45)	2.65 (1.43)	2.65 (1.49)	2.63 (1.47)	2.20 (1.26)	1.61
5. Student involvement policies	2.62 (.88)	2.68 (.81)	2.70 (.93)	2.56 (.87)	2.49 (.85)	1.41
6. Student incentives	1.78 (1.17)	2.00 (1.17)	1.80 (1.22)	1.68 (1.16)	1.63 (.90)	2.52
7. Professional development policies	1.96 (.79)	2.05 (.80)	1.88 (.75)	1.96 (.83)	2.02 (.73)	1.37
8. Faculty training required	2.44 (1.53)	2.40 (1.53)	2.36 (1.46)	2.55 (1.56)	2.33 (1.59)	.74
9. Student affairs policies	2.06 (1.21)	1.92 (1.10)	2.24 (1.27)	2.05 (1.24)	1.80 (1.02)	2.95*
10. Faculty evaluation policies	1.19 (.62)	1.28 (.63)	1.20 (.65)	1.15 (.59)	1.14 (.60)	1.48
11. Hiring process	1.70 (1.12)	1.65 (1.10)	1.66 (1.10)	1.78 (1.17)	1.63 (1.07)	.69
12. Encourage faculty to assess	3.97 (1.26)	4.06 (1.14)	3.81 (1.35)	4.07 (1.22)	3.86 (1.39)	1.97
13. Academic planning and review policies	2.78 (.94)	2.90 (.89)	2.85 (.93)	2.73 (.99)	2.50 (.86)	2.91*

* $p < .05$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

of professional development for student affairs staff and administrators (2.24) followed by institutions with state assessment policies (2.05) and those with a combination of state policies and statutes on assessment (1.92). Institutions in states using a combination of assessment policies and statutes reported the greatest use of assessment data in academic planning and review decisions (2.90) followed closely by institutions with state statutes (2.85) and institutions with state policies (2.73).

Assessment Management Policies and Practices by Common Indicators/Outcomes. Mean scores and standard deviations of public institutions' use of assessment management policies and practices by state reporting requirements for assessment are displayed in Table 9.22.

Table 9.22 Assessment Management Policies and Practices in Public Institutions by State Requirement for Common Indicators and Outcomes

		State Indicators and Outcomes Requirement (44 States Including DC)				
Assessment Management Policies and Practices	All Institutions N=736	Common for All N=240	Common for Some N=195	Institution Specific N=199	No Indicators or Outcomes N=102	F
1. Conducted evaluation of assessment approach	.51 (.50)	.48 (.50)	.53 (.50)	.53 (.50)	.47 (.50)	.86
2. Resource allocation practices	1.22 (.50)	1.23 (.50)	1.22 (.54)	1.25 (.51)	1.15 (.36)	.63
3. Access to information	3.50 (1.66)	3.58 (1.69)	3.43 (1.69)	3.57 (1.60)	3.35 (1.69)	.70
4. Distribution of reports	2.54 (1.40)	2.53 (1.47)	2.55 (1.40)	2.65 (1.41)	2.37 (1.21)	.90
5. Student involvement policies	2.64 (.88)	2.60 (.93)	2.80 (.87)	2.62 (.83)	2.51 (.84)	2.24
6. Student incentives	1.77 (1.18)	1.73 (1.16)	1.85 (1.18)	1.84 (1.32)	1.55 (.88)	1.83
7. Professional development policies	1.96 (.81)	1.79 (.74)	1.98 (.83)	2.09 (.87)	2.03 (.70)	5.55**
8. Faculty training required	2.45 (1.53)	2.24 (1.41)	2.48 (1.57)	2.59 (1.58)	2.55 (1.57)	2.17
9. Student affairs policies	2.07 (1.21)	1.99 (1.17)	2.21 (1.28)	2.09 (1.23)	1.93 (1.14)	1.60
10. Faculty evaluation policies	1.17 (.59)	1.23 (.60)	1.18 (.61)	1.15 (.58)	1.08 (.56)	1.62
11. Hiring process	1.70 (1.11)	1.54 (.91)	1.75 (1.16)	1.87 (1.29)	1.67 (1.00)	3.32*
12. Encourage faculty to assess	3.91 (1.30)	3.73 (1.34)	3.85 (1.36)	4.11 (1.22)	4.05 (1.21)	3.50*
13. Academic planning and review policies	2.79 (.94)	2.74 (.93)	2.79 (.96)	2.89 (.97)	2.72 (.89)	1.06

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

Three small but statistically significant differences were observed in the use of assessment management policies and practices among institutions with different state reporting requirements. These concerned providing professional development for faculty, considering assessment skills when hiring faculty, and encouraging faculty to assess student learning. In all three cases, institutions permitted to report institutionally-specific student indicators and outcomes had the highest use scores (2.09, 1.87, 4.11). Conversely, institutions in states requiring the reporting of common indicators/outcomes for all institutions reported the lowest use of these policies/practices (1.79, 1.54, 3.73). Compared to these two types of reporting requirements, corresponding use scores for institutions in states requiring some common indicators/outcomes and states requiring no indicators/outcomes were in the middle.

Summary. As was discussed in chapter five, institutions have made comparatively little use of assessment management policies and practices to support student assessment. Policies regarding student involvement and academic planning were more frequent than policies regarding professional development and faculty evaluation. Statistically significant differences in policy use were noted by state governance structure. Having a coordinating advisory board for state higher education governance was generally associated with the lowest institutional use of these policies while having a planning agency was related to greatest use. There was little significant variation in the use of assessment management policies and practices to support assessment among institutions with different forms of state initiatives for student assessment. Requiring institutions to devise and report institutionally-specific student performance indicators or outcomes was more often associated with institutional use of assessment management policies and practices for student assessment than was having a state requirement to report common indicators/outcomes.

9.5 State Assessment Approaches and Institutional Uses and Impacts of Student Assessment

Finally, we examined the relationships among the three state-level dimensions (governance structure for higher education, form of assessment initiative, standardization of indicators and outcomes) and the extent to which institutions had used and documented impacts from student assessment information. As discussed in chapter eight, factor analysis distinguished two dimensions of institutional decision making that could be influenced by student assessment information: academic decisions and faculty decisions. Three dimensions of institutional impact were identified: faculty impacts (e.g., satisfaction, interest in teaching, teaching methods); student impacts (e.g., retention or graduation, grade performance, satisfaction); and external impacts (e.g., external reputation or image, external funding received). ANOVAs were used to identify statistically significant differences in assessment uses and impacts by dimensions of state assessment approaches.

Assessment Uses and Impacts by State Governance Structure. Table 9.23 displays the mean scores and standard deviations related to assessment uses and impacts for all public institutions by state governance structure.

Table 9.23 Institutional Uses and Impacts of Student Assessment in Public Institutions by State Governance Structure for Higher Education

Uses and Impacts	All Institutions N=827	State Governance Structure (51 States Including DC)				
		Consolidated Governing N=241	Coordinating Regulatory N=438	Coordinating Advisory N=103	Planning Agency N=51	F
1. Academic decisions	1.40 (.40)	1.40 (.40)	1.43 (.41)	1.34 (.38)	1.36 (.36)	1.44
2. Faculty decisions	1.23 (.58)	1.24 (.60)	1.26 (.59)	1.20 (.55)	1.04 (.34)	2.22
3. Faculty impacts	1.54 (.75)	1.58 (.77)	1.53 (.74)	1.44 (.74)	1.66 (.75)	1.26
4. Student impacts	1.64 (.80)	1.66 (.81)	1.67 (.82)	1.57 (.74)	1.44 (.73)	1.61
5. External impacts	1.19 (.54)	1.18 (.54)	1.24 (.55)	1.09 (.48)	1.10 (.50)	2.80*

* $p < .05$

Note: Standard deviations are in parentheses. Differences in group means for governance structure were estimated using one-way ANOVA.

As was noted in chapter seven, institutions have reported limited influence of student assessment information on institutional decisions and few have monitored the impact of assessment information on internal and external performance indicators. Assessment information was more likely to have influenced academic decisions (1.40) than faculty decisions (1.23) but both mean scores suggest this information was not very influential. Institutions are somewhat more likely to have documented positive impacts from student assessment on internal performance indicators (1.54 for faculty impacts and 1.64 for student impacts) than external performance indicators (1.19), but again, mean scores reveal little documentation.

There was little variation in uses and impacts of student assessment by form of state governance structure for higher education. One small but statistically significant difference was found. Institutions in states using coordinating regulatory boards were most likely to have documented positive external impacts from student assessment information (1.24), while institutions from states with coordinating advisory boards were least likely (1.09). Institutions from states with consolidated governing boards (1.18) and with planning agencies (1.10) scored between the two other forms of governance structures.

Assessment Uses and Impacts by Form of Assessment Initiative. Table 9.24 displays mean scores and standard deviations of public institutions' uses and impacts of assessment information by state assessment initiative.

Table 9.24 Institutional Uses and Impacts of Student Assessment in Public Institutions by State Initiative for Student Assessment

		State Initiative for Student Assessment (46 States Including DC)				
Uses and Impacts	All Institutions N=642	Policy & Statute N=136	State Statute N=207	State Policy N=250	No State Plan N=54	F
1. Academic decisions	1.42 (.40)	1.48 (.42)	1.43 (.40)	1.39 (.39)	1.37 (.37)	1.74
2. Faculty decisions	1.23 (.58)	1.28 (.62)	1.26 (.62)	1.20 (.54)	1.11 (.43)	1.40
3. Faculty impacts	1.58 (.75)	1.63 (.74)	1.55 (.74)	1.58 (.77)	1.49 (.73)	.60
4. Student impacts	1.67 (.80)	1.81 (.84)	1.70 (.82)	1.64 (.78)	1.39 (.72)	3.68*
5. External impacts	1.20 (.54)	1.25 (.52)	1.26 (.59)	1.17 (.52)	.95 (.39)	5.49**

* $p < .05$; ** $p < .01$

Note: Standard deviations are in parentheses. Differences across group means for state initiative were estimated using one-way ANOVA.

There were few differences in reported uses and impacts of student assessment by the form of state initiative for student assessment. Institutions in states using a combination of policies and statutes, and those from states using statutes only were statistically more likely to report positive impacts of assessment information on students (1.81 and 1.70) and external performance indicators (1.25 and 1.26) than institutions with state policies on student assessment (1.64 for student impacts and 1.17 for external impacts). Institutions with no state plan were least likely to report assessment-related impacts on students (1.39) or the external environment (.95).

Assessment Uses and Impacts by Common Indicators/Outcomes. As Table 9.25 reveals, there were no statistically significant differences found in the institutional uses and impacts of student assessment information reported among public institutions with different state reporting requirements for student indicators/outcomes.

Table 9.25 Institutional Uses and Impacts of Student Assessment in Public Institutions by State Requirement for Common Indicators and Outcomes

Uses and Impacts	All Institutions N=703	State Indicators and Outcomes Requirement (46 States Including DC)				
		Common for All N=228	Common for Some N=189	Institution Specific N=195	No Indicators or Outcomes N=99	F
1. Academic decisions	1.40 (.40)	1.38 (.40)	1.38 (.41)	1.42 (.41)	1.42 (.37)	.52
2. Faculty decisions	1.22 (.56)	1.23 (.56)	1.24 (.61)	1.19 (.54)	1.19 (.53)	.48
3. Faculty impacts	1.56 (.76)	1.49 (.74)	1.55 (.77)	1.66 (.77)	1.60 (.75)	1.88
4. Student impacts	1.65 (.80)	1.64 (.79)	1.65 (.84)	1.68 (.80)	1.61 (.77)	.19
5. External impacts	1.19 (.54)	1.23 (.56)	1.20 (.56)	1.17 (.51)	1.10 (.51)	1.42

Note: Standard deviations are in parentheses. Differences across group means for state requirements were estimated using one-way ANOVA.

Summary. Few, and generally weak, relationships were found among dimensions of state assessment approaches and institutional uses and impacts of student assessment information. In large part, this result is due to the low incidence of assessment-related uses and impacts reported by institutions. As may be expected, some differences were found in relation to external impacts, a construct that included state funding allocation. There was a small positive relationship between the authority of the state governance structure for higher education and the likelihood of institutions reporting a positive external impact from student assessment information. Also, institutions in which state assessment initiatives were in the form of either statutes or both policies and statutes were more likely to report positive external impacts from assessment than those with state policies only or no state initiative for student assessment. Interestingly, there were no statistically significant differences in documented impacts found among institutions with different types of state reporting requirements for student indicators or outcomes.

9.6 Regional Accreditation Affiliation and Institutional Approach to Student Assessment

There are six regional accrediting agencies responsible for evaluating institutions of higher education within their respective geographical areas: Middle States Association of Colleges and Schools, New England Association of Schools and Colleges, North Central Association of Colleges and Schools, Northwest Association of Schools and Colleges, Southern Association of Colleges and Schools, and Western Association of Schools and Colleges. In this section, we present findings regarding relationships among institutions' regional accreditation affiliation and the following dimensions of institutions' student assessment approach: extent of student assessment data collected, student assessment data collection methods, and student assessment studies and reports produced. For these analyses, we include data from public *and* private institutions. ANOVAs were used to identify statistically significant differences in institutional assessment approach dimensions by regional accreditation membership.

9.6.1 Regional Accreditation Affiliation and Extent of Student Assessment

The extent of institutions' data collection efforts for student assessment was represented by scores on three factors (cognitive assessment, affective assessment and postcollege assessment), three single variables that did not load on these factors (academic intentions, academic progress and civic/social roles of former students) and two additive indices (comprehensiveness of data collection and timing of data collection). Mean scores and standard deviations for each of these extent dimensions for all institutions by regional accreditation affiliation are displayed in Table 9.26.

Table 9.26 Extent of Student Assessment by Accrediting Region

Extent of Student Assessment Data Collection:		Accrediting Region						
Type, Comprehensiveness and Timing	All Institutions N=1393	Middle States N=191	North Central N=529	New England N=87	Northwest N=80	Southern N=423	Western N=83	F
1. Academic intentions	3.25 (.98)	3.19 (1.03)	3.25 (.96)	3.14 (1.09)	3.32 (.88)	3.30 (.99)	3.21 (1.02)	.64
2. Academic progress	3.76 (.55)	3.90 (.37)	3.70 (.59)	3.75 (.58)	3.73 (.45)	3.77 (.54)	3.71 (.66)	3.31**
3. Cognitive assessment	1.68 (.58)	1.54 (.59)	1.78 (.55)	1.54 (.62)	1.59 (.58)	1.75 (.55)	1.22 (.54)	18.23**
4. Affective assessment	1.87 (.54)	1.89 (.55)	1.84 (.53)	1.84 (.59)	1.82 (.52)	1.94 (.53)	1.68 (.57)	3.55**
5. Civic or social roles	1.80 (.89)	1.97 (1.01)	1.77 (.89)	1.84 (.81)	1.57 (.78)	1.82 (.89)	1.63 (.75)	3.26**
6. Post-college assessment	2.29 (.60)	2.41 (.65)	2.31 (.58)	2.18 (.61)	2.18 (.54)	2.35 (.58)	1.82 (.55)	14.22**
7. Comprehensiveness of data collection	36 (7)	37 (7)	37 (7)	34 (7)	34 (7)	37 (7)	31 (7)	13.68**
8. Timing of data collection	19 (5)	18 (5)	20 (5)	18 (4)	19 (5)	19 (4)	17 (5)	4.40**

**$p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

Although the inclusion of private institutions in this analysis did result in slightly higher mean scores for several measures (affective assessment, civic/social roles of former students, timing of data collection) than was the case for public institutions only, the overall pattern of data collection presented here replicates the results discussed earlier in this chapter. Institutions collected data related to students' academic intentions (3.25) and progress (3.76) more extensively than they collected information regarding students' cognitive (1.68) or affective (1.87) competencies, or regarding former students' civic/social roles (1.80) and other postcollege competencies (2.29).

There were statistically significant differences among accrediting regions for all extent measures except academic intentions. Overall, institutions in the Middle States, Southern and

North Central accrediting regions had the most extensive profiles of data collection. Middle States institutions collected the most extensive information on students' academic progress (3.90), civic/social roles (1.97) and postcollege competencies (2.41), were second highest on affective competencies (1.87), and had the highest index score for comprehensiveness of data collection (37). Southern Association institutions were highest on affective assessment (1.94), second highest for academic progress (3.77), cognitive assessment (1.75), and postcollege assessment (2.35), and were tied for the highest index score for comprehensiveness of data collection (37). North Central institutions were highest in collecting cognitive competencies (1.78) and had the highest index scores for comprehensiveness (37) and timing (20) of data collection. Extent scores for New England institutions consistently fell in the middle range. Institutions belonging to the Northwest region had comparatively lower scores, while those in the Western accrediting region ranked lowest on five of the seven measures for which there were significant differences across regions.

9.6.2 Regional Accreditation Affiliation and Student Assessment Data Collection Methods

Institutions' methods of collecting student assessment data were represented by scores on two factors (student-centered methods and external methods), three variables that did not load on these factors (transcript analysis, external examinations and surveys/interviews of withdrawing students) and an additive index of the number of assessment instruments used (comprehensive tests or examinations from institutional, state or commercial sources). Mean scores and standard deviations for each of these methods for all institutions by accrediting region are displayed in Table 9.27.

Compared to Table 9.8, the inclusion of private institutions raised the mean score for use of student-centered data collection methods by all institutions. The general pattern of data collection method use remained the same. Statistically significant differences across accrediting regions were found for all six data collection methods considered in this analysis, although two (transcript analysis and student- centered methods) were small in magnitude and significant at only the .05 level.

Table 9.27 Student Assessment Data Collection Methods by Accrediting Region

Data Collection Methods	All Institutions N=1373	Accrediting Region						
		Middle States N=186	North Central N=522	New England N=87	Northwest N=79	Southern N=417	Western N=82	F
1. Number of instruments	9 (3)	9 (3)	10 (4)	8 (3)	9 (4)	10 (3)	7 (3)	13.40**
2. Transcript analysis	2.16 (1.14)	2.23 (1.19)	2.06 (1.07)	2.30 (1.20)	2.35 (1.20)	2.24 (1.16)	2.00 (1.14)	2.41*
3. External examinations	2.02 (.49)	1.96 (.38)	2.02 (.42)	1.95 (.66)	1.90 (.41)	2.14 (.56)	1.72 (.48)	13.11**
4. Surveys/interviews of withdrawing students	2.40 (1.00)	2.58 (.99)	2.35 (.98)	2.41 (1.05)	2.27 (.92)	2.46 (1.01)	2.03 (1.03)	4.32**
5. Student-centered methods	1.37 (.30)	1.37 (.32)	1.39 (.30)	1.39 (.30)	1.37 (.26)	1.37 (.30)	1.26 (.32)	2.58*
6. External methods	2.04 (.57)	2.06 (.61)	2.07 (.57)	1.95 (.51)	2.00 (.54)	2.07 (.58)	1.75 (.44)	5.51**

*$p < .05$, **$p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

The most notable profile was that of institutions in the Western accrediting region. Compared to the other accrediting regions, these institutions had the lowest scores for all data collection methods. Institutions in the Southern and North Central regions had the highest means for three measures. Southern region institutions made the most extensive use of external examinations (2.14) and were tied with North Central institutions for the use of external methods (2.07) and on the highest index score for the number of assessment instruments used (10). North Central region institutions were tied with New England institutions for most extensive use of student-centered methods (1.39). Middle States, New England and Northwest region institutions each had the highest scores on one data collection method measure; their scores on the remaining measures spanned the upper to lower middle range.

9.6.3 Regional Accreditation Affiliation and Assessment Studies and Reports

The nature and extent of assessment studies and reports conducted by institutions were represented by scores on two factors (curricular experience studies and co-curricular experience studies), a single variable that did not load on these factors (conducts no studies) and two additive indices of the number of studies conducted and number of reports written. Mean scores and standard deviations for each of these variables for all institutions by accrediting region are displayed in Table 9.28. This table shows the same pattern of conducting assessment studies and producing assessment reports for all institutions as was displayed in Table 9.11 for public institutions. There were no statistically significant differences in the number of assessment studies and reports produced among institutions in different accrediting regions.

Table 9.28 Student Assessment Studies and Reports by Accrediting Region

		Accrediting Region							
Studies and Reports	All Institutions N=1363	Middles States N=187	North Central N=519	New England N=81	Northwest N=79	Southern N=416	Western N=81	F
1. Number of studies	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	2 (2)	.32
2. Curricular experience studies	.14 (.18)	.13 (.18)	.13 (.17)	.14 (.19)	.15 (.18)	.14 (.18)	.14 (.18)	.41
3. Co-curricular experience studies	.20 (.23)	.21 (.24)	.20 (.23)	.22 (.25)	.20 (.25)	.21 (.22)	.19 (.23)	.28
4. Conducts no studies	.38 (.48)	.42 (.50)	.40 (.49)	.33 (.47)	.39 (.49)	.34 (.47)	.31 (.47)	1.58
5. Number of reports	2 (1)	3 (2)	3 (1)	2 (1)	2 (1)	2 (1)	3 (1)	1.31

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

Summary. Accrediting region affiliation was associated with significant differences in the extent to which institutions collect data on students. Institutions in the Middle States, Southern and North Central regions have the most extensive profiles of data collection. New England and Northwest region institutions are in the middle range of extent scores while Western institutions reported the least extensive data collection efforts overall. There were also significant differences in institutions' use of data collection methods across accrediting regions. Once again, Southern and North Central region institutions have the highest use scores overall. New England, Middle States and Northwest region institutions tend to be in the middle range. Institutions in the Western accrediting region have the lowest use scores for every data collection measure considered in this analysis. Regional accreditation affiliation was not related to differences in the number of assessment studies and reports undertaken by institutions. This finding is likely a function of the low level of institutional activity reported in this dimension of student assessment approach. Also, the nature of studies and reports considered are those that serve internal purposes. Consequently, they are unlikely to be related to external influences.

9.7 Regional Accreditation Affiliation and Organizational/Administrative Support for Student Assessment

In the following sections, we report the relationships between regional accreditation affiliation and two domains of organizational and administrative support for student assessment. The tables in this section show mean scores for specific dimensions within each of these institutional domains. ANOVAs were used to identify statistically significant differences in these dimensions by accrediting region.

9.7.1 Regional Accreditation Affiliation and Institutional Support Strategy for Student Assessment

We examined the relationship of regional accrediting affiliation to two dimensions of institutions' internal support strategies: the extent to which the mission statement emphasized student assessment and institutions' purposes for conducting student assessment (internal purposes, accreditation self-study, state requirements). Table 9.29 displays mean scores and standard deviations for these support strategy dimensions for all institutions by accrediting region.

Table 9.29 Institutional Support Strategy for Student Assessment by Accrediting Region

		Accrediting Region						
Institutional Support Strategy for Student Assessment	All Institutions N=1377	Middle States N=190	North Central N=527	New England N=86	Northwest N=79	Southern N=419	Western N=82	F
1. Mission emphasis	1.53 (.86)	1.60 (.82)	1.45 (.87)	1.42 (.76)	1.25 (.96)	1.69 (.82)	1.46 (.96)	6.39**
2. Internal purposes	2.50 (.49)	2.49 (.52)	2.47 (.49)	2.46 (.50)	2.39 (.54)	2.59 (.46)	2.39 (.55)	4.85**
3. Accreditation purposes	3.61 (.65)	3.46 (.71)	3.67 (.60)	3.50 (.72)	3.59 (.71)	3.65 (.61)	3.46 (.82)	4.50**
4. State purposes	2.89 (1.18)	2.79 (1.16)	2.75 (1.17)	2.65 (1.28)	2.88 (1.20)	3.24 (1.05)	2.43 (1.30)	12.90**

$^{**}p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

As would be expected, the inclusion of private institutions resulted in a lower mean score for the importance given to meeting state requirements as an assessment purpose than was reported for public institutions (compare to Table 9.14). There were statistically significant differences across accrediting regions in all four support strategy dimensions. Institutions in the Southern accrediting association had the strongest profile of institutional support strategy of all accrediting regions. They gave the most emphasis to student assessment in their mission statements (1.69), had the highest importance ratings for internal purposes (2.59) and state requirements (3.24), and second highest rating for accreditation requirements as purposes for student assessment. Institutions in the North Central region gave the highest importance rating overall to accreditation requirements as an assessment purpose (3.67). Beyond that, institutional support strategy scores for institutions in the North Central and Middle States accrediting regions were in the upper middle range overall, while those of institutions in the New England region were in the middle range. Institutions in the Northwest region gave the least emphasis to student assessment in their mission statements (1.25) and were tied with Western region institutions for the lowest importance rating given to internal improvement as an assessment purpose (2.39). Western region institutions also had the lowest importance ratings for accreditation requirements (3.46) and state requirements (2.43) as purposes for engaging in student assessment.

9.7.2 Regional Accreditation Affiliation and Institutional Leadership/Governance for Student Assessment

We examined the relationship of regional accreditation affiliation to six dimensions of institutions' leadership and governance patterns for student assessment: the institution-wide administrative and governance activities used to promote student assessment; degree of administrative and faculty support for student assessment; and four dimensions of the structure and process of planning and policy setting for assessment. Mean scores and standard deviations for each of these leadership and governance dimensions for all institutions by accrediting region are displayed in Table 9.30.

Table 9.30 Assessment Leadership and Governance by Accrediting Region

Assessment Leadership and Governance	All Institutions N=1381	Accrediting Region Middle States N=188	 North Central N=526	 New England N=85	 Northwest N=80	 Southern N=420	 Western N=82	 F
1. Administrative and governance activities	2.35 (1.22)	2.23 (1.25)	2.44 (1.14)	2.20 (1.34)	2.33 (1.15)	2.29 (1.30)	2.31 (1.31)	1.13
2. Administrator and faculty support	17.05 (2.76)	17.09 (2.63)	17.06 (2.72)	16.55 (3.35)	17.25 (1.94)	17.19 (2.70)	16.48 (3.51)	1.57
3. Formal centralized policy	.50 (.50)	.29 (.45)	.59 (.49)	.24 (.43)	.40 (.49)	.59 (.49)	.32 (.47)	22.07**
4. Institution-wide planning group	.70 (.46)	.64 (.48)	.85 (.36)	.48 (.50)	.71 (.46)	.60 (.49)	.63 (.49)	20.42**
5. Breadth of assessment planning group	4 (2)	4 (2)	4 (1)	3 (1)	4 (1)	4 (2)	4 (1)	7.17**
6. Number approving changes	3 (1)	3 (2)	2 (1)	2 (1)	3 (1)	3 (1)	3 (2)	1.54

$^{**}p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

The mean score for administrative and faculty support for student assessment was slightly lower for public and private institutions combined compared to that for public institutions (17.05 versus 17.18). There were no meaningful differences in the mean scores for other leadership/governance dimensions reported by all institutions and by public institutions only.

There were statistically significant differences among accrediting regions in three of the six leadership and governance dimensions. Institutions in the North Central and Southern regions were most likely to have a formal centralized student assessment policy (.59). Institutions in the Northwest and Western regions were somewhat less likely to have this type of institutional assessment policy (.40 and .32 respectively), while those in the Middle States and New England regions were least likely to do so (.29 and .24). Institutional members of the North Central accrediting association were also most likely to have an institution-wide group for student assessment planning (.85); they were followed in descending order by institutions in the Northwest (.71), Middle States (.64), Western (.63), Southern (.60) and New England (.48) regions. Finally, institutions in the New England accrediting region had fewer members on their assessment planning groups (3) than institutions in the other accrediting regions.

Summary. Regional accreditation affiliation was significantly related to most of the measures of organizational and administrative support for student assessment. Membership in the Southern accrediting region was particularly associated with the strength of internal support for student assessment. The North Central and Middle States regions were associated with moderately high institutional support strategy scores, New England and Northwest were in the middle to lower range of scores, and the Western region had the lowest scores overall. Statistically significant differences by accrediting region were evident in institutions' use of formal centralized assessment policies and likelihood of using an institution-wide group to do student assessment planning.

9.8 Regional Accreditation Affiliation and Assessment Management Policies and Practices

In this section we examine the relationships among regional accreditation affiliation and the assessment management policies and practices used by institutions. The following thirteen dimensions of assessment management policies and practices were considered in these analyses: institutional evaluation of student assessment plan; resource allocation practices; access to assessment information; distribution of assessment reports; student involvement policies; providing incentives for student involvement; professional development policies; requiring faculty training in assessment; student affairs policies; faculty evaluation policies; considering assessment skills in hiring; encouraging faculty to assess student performance; and academic planning and review policies. ANOVAs were used to identify statistically significant differences in the use of these policies/practices among accrediting regions. Table 9.31 displays the mean scores and standard deviations related to the use of these assessment management policies and practices for all institutions and by accrediting region.

The average scores for institutional use of assessment management policies and practices for public and private institutions combined did not differ appreciably from scores reported for public institutions only (see Table 9.20). Statistically significant differences by accrediting region were observed for the use of all assessment management policies and practices but one--the consideration of assessment skills when hiring faculty.

Table 9.31 Assessment Management Policies and Practices by Accrediting Region

Assessment Management Policies and Practices	All Institutions N=1363	Accrediting Region						
		Middle States N=189	North Central N=517	New England N=83	Northwest N=78	Southern N=414	Western N=83	F
1. Conducted evaluation of assessment approach	.50 (.50)	.35 (.48)	.54 (.50)	.27 (.44)	.40 (.49)	.58 (.49)	.45 (.50)	10.82**
2. Resource allocation practices	1.18 (.46)	1.16 (.45)	1.16 (.44)	1.06 (.25)	1.38 (.57)	1.20 (.50)	1.17 (.38)	2.61*
3. Access to information	3.46 (1.65)	3.63 (1.61)	3.25 (1.72)	3.31 (1.55)	3.36 (1.64)	3.68 (1.56)	3.50 (1.62)	3.93**
4. Distribution of reports	2.43 (1.37)	2.31 (1.41)	2.49 (1.33)	2.07 (1.48)	2.59 (1.62)	2.50 (1.30)	2.20 (1.48)	2.46*
5. Student involvement policies	2.66 (.86)	2.38 (.91)	2.75 (.81)	2.37 (.88)	2.49 (.83)	2.81 (.82)	2.44 (.94)	11.04**
6. Student incentives	1.87 (1.23)	1.64 (1.09)	1.92 (1.21)	1.46 (1.03)	1.94 (1.19)	1.97 (1.33)	1.79 (1.22)	3.58**
7. Professional development policies	1.89 (.79)	1.56 (.59)	1.82 (.81)	2.06 (.90)	1.81 (.77)	2.00 (.77)	1.79 (.77)	6.45**
8. Faculty training required	2.47 (1.56)	2.09 (1.43)	2.41 (1.54)	2.48 (1.47)	2.39 (1.50)	2.79 (1.62)	1.88 (1.28)	10.85**
9. Student affairs policies	1.94 (1.18)	1.77 (1.11)	1.85 (1.10)	1.73 (1.10)	2.19 (1.21)	2.13 (1.30)	1.88 (1.13)	4.54**
10. Faculty evaluation policies	1.24 (.66)	1.36 (.69)	1.16 (.59)	1.19 (.62)	1.26 (.61)	1.31 (.71)	1.17 (.70)	3.88**
11. Hiring process	1.68 (1.10)	1.66 (1.05)	1.66 (1.10)	1.75 (1.18)	1.96 (1.21)	1.71 (1.14)	1.39 (.73)	2.21
12. Encourage faculty to assess	3.99 (1.31)	3.82 (1.38)	4.11 (1.23)	3.95 (1.30)	4.18 (1.07)	4.03 (1.33)	3.25 (1.51)	6.77**
13. Academic planning and review policies	2.79 (.97)	2.40 (1.04)	3.10 (.91)	2.64 (.94)	2.32 (1.03)	2.74 (.91)	2.68 (.99)	16.28**

$^*p < .05$, $^{**}p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

Overall, institutions in the Southern accrediting region reported the most extensive use of assessment management policies and practices. They were most likely to have evaluated their student assessment plan (.58) and scored highest on the use of policies/practices related to access to assessment information (3.68), student involvement (2.81), offering incentives to students (1.97), and requiring faculty to have assessment training (2.79). They had the second highest use scores for policies and practices related to resource allocation (1.20); distribution of assessment reports (2.50); professional development for faculty (2.00) and student affairs personnel (2.13); faculty evaluation (1.31); and academic planning and review (2.74).

There was considerable variability in the patterns of using these policies and practices in the other five accreditation regions. Scores for institutions belonging to the Middle States, North Central, New England and Northwest accrediting regions ranged from the highest to the lowest for at least one policy/practice each, with the majority of use scores distributed over the midrange. Only institutions in the Western region did not have any use scores that were highest or second highest overall; their scores ranged from the middle to the lowest across accrediting regions.

9.9 Regional Accreditation Affiliation and Institutional Uses and Impacts of Student Assessment

Finally, we examined the relationships among regional accreditation affiliations and the extent to which institutions had used and documented impacts of student assessment information. Factor analysis distinguished two dimensions of institutional decision making that could be influenced by student assessment information: academic decisions concerning instructional experiences, academic plans or structures, student assessment planning, and resource allocation; and faculty decisions. Three dimensions of institutional impact were identified: faculty impacts (e.g., satisfaction, interest in teaching, teaching methods); student impacts (e.g., retention or graduation, grade performance, satisfaction); and external impacts (e.g., external reputation or image, external funding received). ANOVAs were used to identify statistically significant differences in the assessment uses and impacts by accrediting region. Table 9.32 displays the mean scores and standard deviations related to uses and impacts for all institutions by accrediting region.

The average scores for institutional uses and impacts of student assessment information for public and private institutions combined did not differ appreciably from scores reported for public institutions only (see Table 9.23). There were statistically significant differences in all five measures of institutional uses and impacts, but differences associated with impacts on faculty were small. Once again, institutions belonging to the Southern accrediting region had the strongest

Table 9.32 Institutional Uses and Impacts of Student Assessment by Accrediting Region

Uses and Impacts	All Institutions N=1310	Accrediting Region						
		Middle States N=177	North Central N=504	New England N=79	Northwest N=76	Southern N=398	Western N=79	F
1. Academic decisions	1.40 (.41)	1.36 (.40)	1.36 (.40)	1.32 (.38)	1.43 (.40)	1.51 (.40)	1.31 (.41)	8.07**
2. Faculty decisions	1.28 (.62)	1.29 (.59)	1.18 (.54)	1.25 (.60)	1.24 (.53)	1.40 (.69)	1.29 (.72)	6.08**
3. Faculty impacts	1.57 (.77)	1.48 (.76)	1.61 (.75)	1.36 (.73)	1.61 (.79)	1.63 (.77)	1.48 (.82)	2.75*
4. Student impacts	1.62 (.80)	1.55 (.77)	1.55 (.78)	1.36 (.68)	1.65 (.77)	1.80 (.84)	1.62 (.78)	7.06**
5. External impacts	1.17 (.54)	1.10 (.50)	1.13 (.51)	1.07 (.55)	1.17 (.53)	1.27 (.58)	1.13 (.54)	4.46**

*$p < .05$, **$p < .01$

Note: Standard deviations are in parentheses. Differences across group means for accrediting region were estimated using one-way ANOVA.

profile. They reported the greatest influence of assessment data on academic decisions (1.51) and faculty decisions (1.40) and were most likely to have documented positive impacts from assessment information on student performance (1.80) and external performance indicators (1.27). Institutions in the Northwest region had the second highest profile of scores for assessment uses and impacts, followed by institutions in the Middle States, North Central and Western regions. Institutions in the New England accrediting region were least likely to report using and documenting impacts from assessment information; they had the lowest scores of all regions on positive impacts of assessment on student performance (1.36) or external performance (1.07) indicators.

9.10 Summary of External Influences on Institutional Student Assessment Patterns

Distinctive relationships were observed between state and regional accreditation influences and institutions' patterns of student assessment. Overall, it appears that having a centralized, authoritative governance structure for higher education (consolidated governing board or coordinating regulatory board) is positively associated with the degree of institutional support for student assessment. Institutions in states with these forms of governance structures for higher education have more extensive student assessment approaches, have established more internal

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strategies to support assessment, and report greater internal support for assessment. This greater degree of involvement is more likely if the initiatives used to frame assessment requirements are non-legislative or a combination of statute and policy, and if reporting requirements exist, but institutions are permitted to develop and report their own student performance indicators and outcomes. State assessment approaches were only minimally related to institutions' reported use and impacts of student assessment.

Compared to state assessment approaches, regional accreditation affiliation was associated with more and larger differences in how institutions approach, support and use student assessment. This finding is consistent with institutions' perceptions of the relative influence of state and accreditation requirements on their assessment activities, and is congruent with prior research. Compared to other accrediting regions, institutions in the Southern, North Central and Middle States regions reported higher scores for their student assessment approaches and organizational /administrative support for student assessment. This finding is likely due to the longer period of time during which these associations have been active in promoting student assessment as an important institutional activity. Institutions from the Southern accrediting region had the strongest profile of using assessment management policies and practices to support student assessment, and reported the most extensive uses and impacts of student assessment information. The Southern accrediting region was among the first to incorporate criteria related to student assessment in its self-study requirements. Further, a number of southern states have been active in student assessment initiatives.

10. Relationship of Institutional Student Assessment Patterns to Institutional Uses and Impacts of Student Assessment

In this chapter, we examine the relationship of institutions' student assessment approaches and patterns of organizational and administrative support for student assessment to institutional uses and impacts of student assessment information (research question seven). In the tables that follow, we present correlations among these domains of institutional student assessment activity for all institutions and by institutional type. For these analyses, we employed indices of the variables as described in chapter eight. Due to the large sample size, virtually all variables were significantly correlated. To focus our discussion, we will consider only those correlations greater than .30. All correlations were significant at the $p < .01$ significance level unless otherwise indicated.

10.1 Relationship of Student Assessment Approach to Assessment Uses and Impacts

Institutional approach to student assessment was represented by the following derived variables: the extent to which institutions collected data on former students' competencies and current students' cognitive and affective competencies; comprehensiveness of data collection efforts; number of assessment instruments used; extent of use of student-centered and external assessment methods; number of studies conducted concerning the relationship of students' curricular and co-curricular experiences to student performance; and total number of assessment studies conducted and assessment reports produced.

10.1.1 Relationship of Student Assessment Approach to Assessment Uses

Two factors reflected different dimensions of student assessment information use in institutional decision making. "Academic decisions" refers to the use of assessment information in institutional decisions concerning academic planning, resource allocation and instructional experiences. "Faculty decisions" refers to the use of assessment information in institutional decisions concerning faculty promotion or rewards. Table 10.1 displays the correlations greater than .30 among these assessment approach variables and institutional uses of assessment information.

For all institutions, six of the eleven measures of institutions' student assessment approaches had correlations greater than .30 with the use of student assessment information in academic decisions: collection of cognitive data, comprehensiveness of data collection overall, number of assessment instruments used, use of student-centered assessment methods, number of studies of students' curricular experiences conducted and total number of assessment studies conducted. Conversely, collecting data on students' postcollege competencies, current students' affective competencies, and from external constituents; conducting studies of students' co-curricular experiences; and the total number of assessment reports produced were not strongly correlated with the use of assessment information in academic decisions. In part, these results are attributable to the low incidence of institutional activity in these assessment approach dimensions. Further, it may be expected that data regarding former students or external constituencies may be less influential in institutional decision making than data collected from current students. There were no correlations greater than .30 between approach measures and the use of student assessment information in faculty promotion decisions.

An examination of correlations for each of the five types of institutions shows four assessment approach indices consistently had strong correlations with academic decision uses of assessment information: extent of assessing students' cognitive competencies, overall comprehensiveness of data collection, number of studies of students' curricular experiences and number of assessment reports produced. Differences in correlations between assessment approach measures and assessment information uses were also evident across institutional types.

The profile of correlations for associate of arts institutions differed from that of most other institutional types in two ways: the collection of data from former students was strongly correlated with using assessment information for academic decisions, while the use of external evaluation methods was not. There were no strong correlations between approach dimensions and faculty decision uses of assessment information.

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Table 10.1 Correlations of Institutional Approach to Student Assessment and Institutional Use of Assessment Information by Institutional Type

	Institutional Uses of Student Assessment Information											
	All Institutions N=1281		Associate of Arts N=528		Baccalaureate N=305		Master's N=306		Doctoral N=64		Research N=78	
Institutional Approach to Student Assessment	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty
1. Postcollege assessment			.30								.31*	
2. Cognitive assessment	.36		.37		.34		.39		.39		.43	
3. Affective assessment												
4. Comprehensiveness of data collection	.37		.40		.31		.42		.37		.49	
5. Number of instruments	.32		.38		.32						.43	
6. Student-centered methods	.32		.37		.34	.31	.31			.39	.39	
7. External methods					.30	.31			.36	.48	.37	
8. Curricular experience studies	.35		.35		.37	.31	.41		.37	.32	.34	
9. Co-curricular experience studies			.32				.30		.36		.40	
10. Number of studies	.36		.38		.36		.41		.41		.43	
11. Number of reports					.35		.30					

Note: All correlations are significant at $p < .01$ unless otherwise indicated; only correlations greater than .30 are included in table

* Correlation is significant at $p < .05$.

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The profile of correlations for baccalaureate institutions differed from those in most other institutions in three respects. The number of studies of students' co-curricular experiences and performance was not strongly correlated to using assessment information for academic decisions but the number of assessment reports produced was. Further, the use of student-centered and external assessment methods, and conducting studies of students' curricular experiences were correlated with the use of assessment information in faculty promotion and reward decisions. These correlations between assessment approaches and faculty decisions are congruent with the emphasis of baccalaureate institutions on excellence in undergraduate education.

Master's institutions differed little from other institutions in the correlations existing between assessment approach measures and academic decision uses of assessment information. The number of assessment instruments and use of external assessment methods were not strongly correlated with using assessment information in academic decisions. Like baccalaureate institutions, the number of assessment reports produced was correlated with use of assessment information in academic decisions. There were no strong correlations between assessment approach dimensions and faculty decision uses of assessment information.

Doctoral institutions had the fewest correlations between assessment approaches and use of assessment information in academic decisions. Unlike most other institutions, the total number of assessment instruments used and the use of student-centered assessment methods were not related to this use of assessment data. Somewhat surprisingly, doctoral institutions were the only institutional type besides baccalaureate institutions to have correlations between assessment approach measures and the use of assessment information in faculty decisions. The correlated measures were the same for these two institutional types: use of student-centered and external assessment methods, and number of studies conducted of the relationship between students' curricular experiences and performance.

Research institutions had the most correlations between assessment approach measures and use of assessment data for academic decisions. As was the case with associate of arts institutions, the collection of data from former students was correlated with academic decision-making uses.

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There were no strong correlations between assessment approach measures and the use of assessment information in faculty decisions.

10.1.2 Relationship of Student Assessment Approach to Assessment Impacts

Table 10.2 displays correlations greater than .30 among assessment approach variables and three institutional impacts of assessment information: faculty impacts (e.g., interest in teaching, change in teaching methods), student impacts (e.g., retention or graduation rates, grade performance) and external impacts (e.g., funding received from external sources, external reputation).

Examining data for all institutions reveals that two assessment approach indices were strongly correlated with faculty impacts from student assessment: the number of studies analyzing the relationship between students' curricular experiences and performance and the total number of assessment studies conducted. No dimensions of assessment approaches were strongly correlated with student or external impacts.

The pattern of correlations between assessment approach indices and assessment impacts differed considerably across the five types of institutions. Associate of arts institutions had the fewest strong correlations between the assessment approach and impact variables. Studies of students' co-curricular experiences and performance, and the total number of assessment studies conducted were related to faculty impacts from assessment. There were no strong correlations between assessment approach indices and student or external impacts from assessment. Baccalaureate institutions had a larger number of strong associations between their assessment approaches and impacts. Indices concerning the number of studies conducted of students' institutional experiences and performance were related to documented faculty and student impacts from assessment. Conducting studies of students' curricular experiences and total number of assessment studies conducted were strongly associated with faculty and student impacts; the number of co-curricular experience studies conducted was also strongly related to achieving positive faculty impacts. The extent of collecting data on students' cognitive and affective competencies was related to external impacts from assessment.

Table 10.2 Correlations of Institutional Approach to Student Assessment and Institutional Impacts of Assessment Information by Institutional Type

	Institutional Impacts of Student Assessment Information[a]																	
	All Institutions N=1270			Associate of Arts N=529			Baccalaureate N=303			Master's N=303			Doctoral N=65			Research N=70		
Institutional Approach to Student Assessment	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext
1. Postcollege assessment																.35		
2. Cognitive assessment									.30							.41		
3. Affective assessment													.33					
4. Comprehensiveness of data collection									.32				.34			.44		
5. Number of instruments																.31*		
6. Student-centered methods																		
7. External methods															.33*			
8. Curricular experience studies	.31						.35	.33		.36	.33		.40	.44	.64			
9. Co-curricular experience studies				.30			.35				.30			.31*	.39			.30*
10. Number of studies	.34			.33			.40	.31		.36	.36		.39	.43	.60			.34*
11. Number of reports															.43			

[a] Fac = faculty impacts; Stud = student impacts; Ext = external impacts

Note: All correlations are significant at $p < .01$ unless otherwise indicated; only correlations greater than .3 are included in table.

*Correlation is significant at $p < .05$

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Master's institutions had neither the most nor the fewest relationships between assessment approaches and impacts. Conducting studies of students' curricular experiences and the number of studies conducted were strongly correlated with faculty and student impacts from assessment. The number of co-curricular experience studies conducted was also strongly correlated with student impacts. There were no strong correlations between assessment approach indices and external impacts from assessment.

Doctoral institutions had the largest number of strong correlations between assessment approach indices and impact measures. Studies of students' curricular experiences and total number of studies were related to faculty impacts as were the extensiveness of collecting data on students' affective domains and overall comprehensiveness of data collection efforts. Conducting studies of aspects of students' curricular and co-curricular experiences and student performance were related to documenting positive student and external impacts from assessment. In addition, using external assessment methods and the number of assessment reports produced were associated with external impacts.

Research institutions had a unique pattern of relations between assessment approaches and faculty impacts. Three indices reflecting the content and extent of data collection were strongly related to faculty impacts: extent of collecting post college data and cognitive data, and overall comprehensiveness of data collection efforts. Total number of assessment instruments was also strongly related. Unlike other institutional types, conducting studies of students' institutional experiences and performance were not strongly related to achieving faculty impacts. There were no strong associations between assessment approach indices and student impacts from assessment. Conducting studies of students' co-curricular experiences and the total number of studies conducted were related to external impacts from assessment.

10.1.3 Summary of Assessment Approaches with Uses and Impacts

Relationships are apparent between several dimensions of institutions' student assessment approaches and their uses and impacts of student assessment information. Two related approach indices — studies of the relationship of students' curricular experiences and performance, and the total number of assessment studies conducted — had strong correlations with most of the assessment use and impact factors. Otherwise, patterns of correlations with assessment approach variables varied for specific assessment uses and impacts.

For each of the five types of institutions, several approach indices were consistently strongly correlated with institutions' use of student assessment information in academic decisions. These approach measures reflect the extent to which cognitive data on current students is collected, the comprehensiveness of data collection efforts, the use of student-centered assessment methods, and institutional efforts to analyze the relationship between students' institutional experiences and performance. The lower occurrence of strong correlations between assessment approaches and the use of assessment information in faculty decisions reflects the resolve of most institutions to keep student assessment participation and information separate from faculty evaluation and reward processes. Baccalaureate and doctoral institutions differed from other institutional types in this respect. In these institutions, student-centered assessment methods that require faculty participation and studies examining the relationship between students' curricular experiences and performance were related to the use of assessment information in faculty decisions.

Strong correlations between assessment approaches and the impact variables were most frequent for faculty impacts and least frequent for external impacts. Conducting studies that analyze relationships between students' curricular and co-curricular experiences and their performance was quite consistently related to documenting assessment-related impacts on faculty performance, and was also related, to a lesser extent, to student and external impacts. This reinforces the assertion of assessment scholars that institutions must not only collect student assessment data but must also support efforts to analyze and interpret the meaning of this data if assessment is to contribute to improvements in institutional performance. To a lesser extent, indices regarding the content and extent of data collection efforts were strongly related to achieving faculty and external impacts from assessment.

10.2 Relationship of Organizational and Administrative Support to Assessment Uses and Impacts

Organizational and administrative support for student assessment was represented by the following variables and indices: mission emphasis on undergraduate education and assessment; importance of conducting assessment for internal purposes; importance of conducting assessment for accreditation purposes; importance of conducting assessment to meet state reporting requirements; the number of administrative and governance activities undertaken to promote assessment; and the degree of administrative and faculty support for assessment.

10.2.1 Relationship of Organizational and Administrative Support to Assessment Uses

Correlations greater than .30 between dimensions of organizational and administrative support for assessment and the use of assessment information in academic and faculty decisions are displayed in Table 10.3. Examining the results for all institutions shows that four of the six support variables/indices were strongly correlated with using assessment information in academic decisions: conducting assessment for internal purposes, conducting assessment for state requirements, administrative and governance activities promoting assessment, and administrative and faculty support for assessment. There were no strong associations between dimensions of organizational and administrative support for assessment and the use of assessment information in faculty decisions.

One organizational and administrative support variable was correlated with using student assessment information in academic decisions was observed in each of the five types of institutions — conducting assessment for internal purposes. Another support measure — administrative and faculty support for assessment — was correlated with academic decision uses of assessment information in all but doctoral institutions. There were no strong correlations between organizational and administrative support measures and faculty decision uses of assessment information common to all five institutional types. It is also interesting to note that two support variables — mission emphasis and conducting assessment for accreditation purposes — were not strongly correlated with uses of student assessment information for either academic or faculty decisions in any of the five institutional types.

Table 10.3 Correlations of Institutional Support and Leadership and Governance Support for Student Assessment with Institutional Use of Assessment Information by Institutional Type

	Institutional Uses of Student Assessment Information											
	All Institutions N=1281		Associate of Arts N=528		Baccalaureate N=305		Master's N=306		Doctoral N=64		Research N=78	
	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty
Institutional Support												
1. Mission emphasis												
2. Conduct for internal purposes	.40		.37		.43		.43		.30*		.46	
3. Conduct for accreditation purposes												
4. Conduct for state purposes	.37											
Leadership & Governance Support												
1. Administrative and governance activities	.32				.40		.32			.30*		
2. Administrative and faculty support	.32		.31		.34		.31				.44	

Note: All correlations are significant at $p < .01$ unless otherwise indicated; only correlations greater than .3 are included in table.
*Correlation is significant at $p < .05$

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Associate of arts and research institutions had the same profile of correlations between support and use variables. In both types of institutions, conducting assessment for internal purposes, and administrative and faculty support for assessment were strongly correlated with using assessment information in academic decisions. There were no strong correlations between support measures and faculty decision uses of assessment information.

Baccalaureate and master's institutions also shared the same pattern of correlations between organizational and administrative support indices and assessment use measures. In both types of institutions, conducting assessment for internal purposes, the number of administrative and governance activities promoting assessment, and the extent of administrative and faculty support for assessment were strongly associated with academic decision uses of assessment information. There were no strong correlations between organizational and administrative support measures and the use of assessment information.

Doctoral institutions differed from other types of institutions in their profile of correlations. Only one support measure was strongly related to academic decision uses of assessment information: conducting assessment for internal purposes. This institutional type was the only one in which any organizational and administrative support measure — the number of administrative and governance activities promoting assessment — was strongly correlated with faculty decision uses of assessment information.

10.2.2 Relationship of Organizational and Administrative Support to Assessment Impacts

Table 10.4 displays correlations greater than .30 among organizational and administrative support measures and the three impacts of assessment information for all institutions and by institutional type.

As Table 10.4 shows, there were very few strong correlations between these two domains. Considering all institutions together, only one support measure — the number of administrative and governance activities promoting assessment — was strongly correlated with positive faculty impacts from assessment. There were no strong relationships between organizational and administrative support measures and either student or external impacts.

Table 10.4 Correlations of Institutional Support and Leadership and Governance Support for Student Assessment with Institutional Impacts of Assessment Information by Institutional Type

	Institutional Impacts of Student Assessment Information[a]																	
	All Institutions N=1270			Associate of Arts N=529			Baccalaureate N=303			Master's N=303			Doctoral N=65			Research N=70		
	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext
Institutional Support																		
1. Mission emphasis													.30*					
2. Conduct for internal purposes													.30*					
3. Conduct for accreditation purposes																		
4. Conduct assessment for state purposes																		
Leadership & Governance Support																		
1. Administrative and governance activities	.33			.37		.31	.41						.37*	.30*				
2. Administrative and faculty support																		

[a] Fac = faculty impacts; Stud = student impacts; Ext = external impacts

Note: All correlations are significant at $p < .01$ unless otherwise indicated; only correlations greater than .3 are included in table.

*Correlation is significant at $p < .05$

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Among associate of arts institutions, the number of administrative and governance activities promoting assessment was strongly associated with achieving positive faculty and external impacts from assessment. In baccalaureate institutions, administrative and governance activities promoting assessment were strongly correlated only with faculty impacts. In master's and research institutions, there were no strong relationships among organizational and administrative support measures and assessment impacts. Doctoral institutions had the largest number of strong associations between the domains of organizational and administrative support and assessment impacts. Three support measures were strongly related to faculty impacts: mission emphasis, conducting assessment for internal purposes, and the number of administrative and governance activities promoting assessment. The number of administrative and governance activities promoting assessment was also strongly related to positive student impacts from assessment.

10.2.3 Summary of Organizational and Administrative Support with Uses and Impacts

There were a limited number of strong associations among measures of organizational and administrative support for assessment and institutional uses and impacts of assessment information. One support measure — the number of administrative and governance activities promoting student assessment — was associated with several of the use and impact factors. Compared to the assessment approach variables, there appear to be weaker relationships between variables in this conceptual domain and the likelihood of institutions using and being positively impacted by assessment information.

Strong correlations consistently emerged between the use of assessment information in academic decisions and two measures of organizational and administrative support: conducting assessment for internal purposes and, in all but doctoral institutions, the degree of administrative and faculty support for assessment. Other analyses, not displayed here, showed these two support measures were correlated with each other ($r^2 = .36; p < .01$). These findings are congruent with scholars' contentions that conducting assessment for internal rather than external purposes may be more likely to promote internal support for assessment and encourage institutional use of assessment information (Braskamp, 1991; Ewell, 1987a; Hutchings & Marchese, 1990; Sell, 1989a). The number of administrative and governance activities undertaken to promote assessment was strongly related to academic decision uses of assessment information in baccalaureate and master's institutions, and to faculty decision uses in doctoral institutions. With the exception of this latter finding, there were no strong relationships between organizational and administrative support measures and the use of assessment information in faculty decisions.

Strong associations were observed between achieving positive faculty impacts from student assessment and one support measure — the number of administrative and governance activities promoting assessment — in associate of arts, baccalaureate and doctoral institutions. This finding suggests the important role such institutional initiatives may play in encouraging faculty to be involved in and make use of student assessment. Otherwise, there was a dearth of strong relationships between organizational and administrative support measures and either student or external impacts from assessment.

10.3 Relationship of Assessment Management Policies and Practices to Assessment Uses and Impacts

Assessment management policies and practices were represented by eleven indices and variables: resource allocation practices; the use of assessment information to decide budget allocations for academic units; breadth of internal access to assessment information on individual students; distribution of assessment reports; policies promoting student involvement in assessment activities; provision of incentives for student involvement in assessment; policies providing professional development on assessment for academic administrators and faculty; requiring faculty to have training in student assessment; policies providing professional development on assessment for student affairs administrators and staff; inclusion of assessment-related criteria in faculty evaluation policies; and incorporating assessment information in academic planning and review processes.

10.3.1 Relationship of Assessment Management Policies and Practices to Assessment Uses

Table 10.5 displays correlations greater than .30 between assessment management policies and practices and the use of assessment information in academic and faculty decisions for all institutions and by institutional type. Seven assessment management policies and practices were strongly correlated with the use of assessment information in academic decisions in all institutions: the distribution of assessment reports; policies promoting student involvement in assessment; policies providing professional development on assessment for academic administrators and faculty; providing professional development on assessment for student affairs personnel; requiring faculty to have assessment training; including assessment-related criteria in faculty evaluation policies; and incorporating assessment information in academic planning and review processes. One assessment management policy dimension — the inclusion of assessment-related criteria in faculty evaluation policies — was strongly correlated with using assessment information in faculty decisions in all but research institutions.

Considering the profile of correlations within each institutional type, three assessment management policies and practices were consistently strongly related to academic decision uses of assessment information: providing professional development on assessment for faculty and academic administrators, providing professional development on assessment for student affairs personnel, and incorporating assessment information in academic planning and review processes. Beyond these three similarities, the patterns of correlations between assessment management policies and practices and assessment uses differed for each of the five types of institutions.

Associate of arts institutions had comparatively few strong correlations between the assessment management and assessment use domains. In addition to the three correlations discussed above, academic decision uses of assessment information in associate of arts institutions was strongly related to the distribution of assessment reports and the inclusion of assessment-related criteria in faculty evaluation policies. Faculty evaluation criteria was the only assessment management measure strongly correlated with faculty decision uses of assessment information.

Baccalaureate institutions had eleven strong correlations between the domains of assessment management policies and practices and assessment uses. They were the only institutional type in which a strong correlation existed between resource allocation practices and academic decision uses. In addition to the three correlations common to all institutional types,

Table 10.5 Correlations of Assessment Management Policies with Practices and Institutional Use of Assessment Information by Institutional Type

	All Institutions N=1281		Institutional Uses of Student Assessment Information									
			Associate of Arts N=528		Baccalaureate N=305		Master's N=306		Doctoral N=64		Research N=78	
Assessment Management Policies and Practices	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty	Academic	Faculty
1. Resource allocation practices					.31							
2. Budget decisions												
3. Access to information					.32	.32			.30*			
4. Distribution of reports	.31		.34				.32				.42	
5. Student involvement	.33				.40		.45		.50		.34	
6. Student incentives										.57		
7. Professional development	.39		.34		.44	.30	.40		.46		.50	
8. Faculty training required	.30						.40		.37	.34	.41	
9. Student affairs	.39		.40		.41		.36		.51	.37	.40	
10. Faculty evaluation	.35	.61	.30	.63	.44	.64	.33	.55	.63	.72		
11. Academic planning and review	.59		.60		.54	.32	.66		.60	.38	.57	

Note: All correlations are significant at p > .01; only correlations greater than .30 are included in table.

other assessment management measures strongly correlated with academic decision uses were: access to assessment information, policies promoting student involvement in assessment, including assessment-related criteria in faculty evaluation policies, and using student assessment information in academic planning and review processes. Four assessment management measures were strongly associated with faculty decision uses of assessment information in baccalaureate institutions: access to assessment information, professional development on assessment for academic administrators and faculty, assessment-related criteria included in faculty evaluation policies, and incorporating assessment information in academic planning and review processes.

In master's institutions, in addition to the correlations between assessment management policy measures and academic decisions common to all five types of institutions, two other strong correlations emerged: policies promoting student involvement and requiring faculty training in assessment. Only one assessment management policy measure was strongly associated with the use of assessment information in faculty decisions: the inclusion of assessment-related criteria in faculty evaluation policies.

Of all types of institutions, doctoral institutions had the greatest number of strong correlations between the domains of assessment management policies and assessment uses. In addition to the correlations between assessment management measures and academic decisions common to all institutional types, four other assessment management measures were strongly associated with this assessment use: access to assessment information, policies promoting student involvement, requiring faculty training in assessment, and including assessment-related criteria in faculty evaluation policies. Five assessment management variables/indices were strongly correlated with faculty decision uses: providing incentives for student involvement in assessment, requiring faculty training in assessment, providing professional development on assessment for student affairs personnel, including assessment-related criteria in faculty evaluation policies and incorporating assessment information in academic planning and review processes. These findings suggest that assessment management policies and practices play a particularly important role in promoting the use and impact of student assessment information in doctoral institutions.

Research institutions had comparatively few strong correlations between assessment management policies and practices and assessment uses. There were strong correlations between academic decision uses of assessment information and distribution of reports, student involvement policies, professional development on assessment for academic administrators and faculty, professional development on assessment for student affairs personnel, requiring faculty training, and incorporating assessment information in academic planning and review processes. No assessment management policies or practices were strongly associated with faculty decision uses. Unlike other institutional types, the inclusion of assessment-related criteria in faculty evaluation policies was not strongly related to either academic or faculty decision uses of assessment information. This result may be reflective of the comparatively strong research emphasis and high degree of faculty autonomy in these institutions.

10.3.2 Relationship of Assessment Management Policies and Practices to Assessment Impacts

Table 10.6 displays correlations greater than .30 between assessment management policies and practices and faculty, student and external impacts of assessment information for all institutions and by institutional type.

Incorporating assessment information into academic planning and review processes was strongly correlated with faculty, student and external assessment impacts for all institutional respondents. This was the only strong association between the variables of assessment management policies and practices and assessment impacts. The academic planning and review index was associated with achieving faculty and student impacts in all five types of institutions except research universities. Otherwise, patterns of correlations varied considerably by institutional type.

Among associate of arts institutions, incorporating assessment information in academic planning and review processes was associated with each of the three impact measures. In addition, providing professional development on assessment for academic administrators and faculty was related to faculty impacts; providing professional development on assessment for student affairs

Table 10.6 Correlations of Assessment Management Policies and Practices with Institutional Impacts of Assessment Information by Institutional Type

	Institutional Impacts of Student Assessment Information[a]																	
	All Institutions N=1270			Associate of Arts N=529			Baccalaureate N=303			Master's N=303			Doctoral N=65			Research N=70		
Academic Management Policies and Practices for Student Assessment	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext	Fac	Stud	Ext
1. Resource allocation practices						.32												
2. Budget decisions																		
3. Access to information													.36	.30*	.33*			
4. Distribution of reports												.34				.39		
5. Student involvement														.34*				
6. Student incentives													.37	.41	.33*			
7. Professional development				.34			.30						.34					
8. Faculty training required							.32			.30								.30*
9. Student affairs					.30			.33	.31				.48	.40	.44			
10. Faculty evaluation									.35				.50	.61	.48		.37	
11. Academic planning and review	.32	.35	.32	.33	.37	.33	.35	.38		.31	.31	.31	.39	.48	.33*			

[a] Fac = faculty impacts; Stud = student impacts; Ext = external impacts

Note: All correlations are significant at p > .01 unless otherwise indicated; only correlations greater than .3 are included in table.

*Correlation is significant at p > .05

personnel was related to student impacts; and resource allocation practices was associated with achieving external impacts from assessment.

In baccalaureate institutions, three assessment management measures were correlated with faculty impacts: providing professional development on assessment for academic administrators and faculty, requiring faculty to have training in assessment and using assessment information in academic planning and review processes. As was the case for associate of arts institutions, providing professional development on assessment for student affairs personnel and using assessment information in academic planning and review processes were associated with achieving student impacts from assessment. Providing professional development on assessment for student affairs personnel and including assessment-related criteria in faculty evaluation policies were strongly correlated with positive external impacts from assessment.

There were few correlations greater than .30 between assessment management policies and practices and assessment impact measures in master's institutions. Incorporating assessment information in academic planning and review processes was associated with positive faculty, student and external impacts from assessment. In addition, requiring faculty training in assessment was correlated with faculty impacts and the distribution of assessment reports was associated with external impacts.

Among doctoral institutions, seven different assessment management policies and practices had correlations greater than .30 with one or more assessment impact measures. Access to assessment information, providing incentives for student involvement in assessment, professional development on assessment for student affairs personnel, including assessment-related criteria in faculty evaluation policies, and incorporating assessment information in academic planning and review processes were strongly associated with all three assessment impacts. In addition, providing professional development on assessment for academic administrators and faculty was correlated with achieving faculty impacts while having policies promoting student involvement in assessment was associated with student impacts.

In contrast, only one assessment policy measure was strongly associated with each of the three impact measures in research institutions. Breadth of internal access to individual student assessment information was strongly correlated with faculty impacts. Including assessment-related criteria in faculty evaluation policies was strongly correlated with student impacts. Requiring faculty training in assessment was strongly correlated with external impacts from assessment.

10.3.3 Summary of Assessment Management Policies with Uses and Impacts

Strong relationships are evident between several dimensions of institutions' assessment management policies and their uses and impacts of student assessment information. One assessment management index — the incorporation of assessment management information in academic planning and review processes — was strongly associated with all five use and impact measures. Overall, assessment management policies were more often strongly associated with assessment uses than with assessment impacts; and with academic decision uses than with faculty decision uses. The profile of correlations between assessment management policies and assessment uses and impacts varied considerably for each of the five types of institutions.

A large proportion of assessment management policies and practices had correlations greater than .30 with using assessment information in institutional decisions. The strongest correlation overall was between incorporating assessment information into academic planning and review processes and the use of assessment information in academic decisions (correlations ranged from .54 to .66). Further, providing professional development on assessment for academic administrators and faculty and for student affairs personnel were consistently correlated with academic decision uses. This finding suggests that providing professional development on assessment orientates institutional personnel to the potential uses of assessment information. With the exception of research institutions, including assessment-related criteria in faculty evaluation policies was also strongly correlated with academic decision uses. Other correlations between assessment management measures and academic decisions varied by type of institution.

There were fewer correlations between assessment management measures and faculty decision uses of assessment information. The inclusion of assessment-related criteria in faculty evaluation policies was associated with using assessment information in faculty decisions in all types of institutions except research institutions. This linkage between evaluation criteria and evaluation decisions makes intuitive sense. Baccalaureate and doctoral institutions had the greatest number of correlations between assessment management measures and assessment uses. This finding suggests these institution types have made greater use of assessment management policies and practices to support the use of assessment information.

Compared to correlations with assessment use measures, there were fewer correlations greater than .30 among assessment management policies and practices and assessment impacts. With the exception of research institutions, incorporating assessment information into academic planning and review processes was the assessment management policy most consistently associated with achieving positive impacts from assessment. In all but master's and research institutions, providing professional development on assessment for academic administrators and faculty was correlated with achieving positive faculty impacts from assessment and providing professional development on assessment for student affairs personnel was correlated with positive student impacts from assessment. Doctoral institutions had the greatest number of strong correlations between assessment management measures and all three assessment impacts. This result suggests that for these institutions, assessment management policies and practices may be a particularly important means of realizing positive impacts from assessment. Conversely, there appear to be weak relationships between assessment management practices and assessment impacts in research institutions.

10.4 Summary of Internal Relationships to Assessment Uses and Impacts

Several variables/indices from each of the three internal influence domains — institutional approach to assessment, organizational and administrative support for assessment, and assessment management policies and practices — emerged as having strong associations with assessment uses and impacts. In the institutional approach to assessment domain, the extensiveness of institutions' data collection efforts, and specifically, the extent to which institutions collected data on students' cognitive domains were strongly associated with both using and realizing impacts from assessment information. In the organizational and administrative support domain, conducting assessment for internal purposes and the degree of administrative and faculty support for assessment were strongly associated with using assessment data for academic decisions. Slightly less frequently, administrative and governance activities promoting assessment were associated with academic decision uses and faculty impacts. In the assessment management policies and practices domain, professional development on assessment for academic administrators and faculty, professional development on assessment for student affairs personnel, and incorporating assessment information in academic planning and review processes were strongly associated with academic uses. Including assessment-related criteria in faculty evaluation policies was correlated with faculty decision uses in all but research institutions. Incorporating assessment information into academic planning and review processes was correlated with assessment impacts in all types of institutions except research institutions.

Overall, variables from the three internal influence domains were more often strongly associated with assessment use measures than with assessment impact measures. This finding is partly indicative of the generally low frequency of institutions documenting impacts attributable to their assessment efforts. Variables/indices from the domains of institutional approaches to assessment and assessment management policies and practices were more often correlated with assessment uses and impacts than were variables/indices from the domain of organizational and administrative support for assessment.

Differences were evident in patterns of correlations among internal influence and assessment use and impact variables within specific types of institutions. Baccalaureate and doctoral institutions had the largest number of correlations greater than .30 among these domains, particularly for assessment uses and impacts related to faculty. Conversely, research institutions had the fewest strong correlations among internal influence domains and assessment uses and impacts.

11. External and Institutional Influences on Institutional Uses and Impacts of Student Assessment

In this chapter, we address research question eight. Using the indices and derived variables identified in chapter eight, we conducted multivariate analyses to examine the relationship of external influences, institutional characteristics, institutional approaches to assessment, and organizational and administrative support for student assessment variables to five indices measuring the institutional uses and impacts of student assessment information. Multivariate analyses were conducted in two stages. In the first stage, regression models were estimated for all institutional respondents. In the second stage, separate regression models were estimated for each institutional type. In the sections that follow, we (1) review the methodology of our multivariate analyses, (2) report results from regression models estimated for all institutions, (3) report results from regression models estimated separately by institutional type and (4) compare patterns of significant predictors for each of the five assessment use and impact measures across institutional types.

11.1 Method of Regression Analyses

A series of stepwise regression analyses were conducted to test the multivariate relationships specified in the conceptual model for this study. In this analytical method, independent variables enter into the regression model according to the amount of unique variance each explains in the outcome measure. The order of entry of independent variables is determined statistically rather than conceptually. Only statistically significant predictors are retained in the model.

The use of stepwise regression was justified on several counts. First, the conceptual and empirical literature suggested a large number of external and internal influences on assessment uses and impacts but provided no basis for ordering the entry of predictor variables into the model *a priori*. Second, this study collected cross-sectional rather than longitudinal data; therefore, it was not possible to infer causal relationships among the predictor variables. Finally, two other regression methods were tried: entering all variables in the model and entering variables in three discrete blocks (institutional characteristics, external influences and institutional approach to assessment). Results obtained were not substantially different from those obtained using the stepwise method. Stepwise regression produces a reduced model of statistically significant predictors and calculates the change in explained variance in the outcome measure associated with each retained variable. Thus, it seemed most useful in identifying the most important predictors from among a large number of potential influences.

Stepwise regression analyses were conducted for five dependent variable indices measuring institutional uses and impacts of student assessment: academic decisions, faculty decisions, faculty impacts, student impacts and external impacts. Independent variables and indices identified in chapter eight were drawn from each of the following conceptual domains: external influences, institutional characteristics, institutional approach to student assessment, organizational and administrative support for assessment, and assessment management policies and practices. In preparation for regression analyses, two categorical independent variables — accrediting region and institutional type — were treated as dichotomous variables and one category from each was omitted from the analyses. The Northwest accrediting region was the omitted category for accrediting regions. Master's institutions was the omitted category for institutional type. These categories fell closest to the mean in scores on the dependent variables in regression analyses. We merged doctoral with research institutions to increase sample sizes. Post-hoc analyses of ANOVA results did not show significant differences between these two institutional types on the dependent variables. Because of the large number of predictors in our model, mean substitution was used to replace missing data in the independent variables. Mean substitution values corresponded to the sample being analyzed in the model. In models estimated for all institutions, mean replacement values were calculated from data on all institutional respondents. In models estimated for separate types of institutions, mean replacement values were calculated for each institutional type. With the exception of three variables (budget decisions--missing 36%; state initiative--missing 21%; administrative and governance activities--missing 21%), the amount of missing data for any variable in the analyses did not exceed 14%. A complete description of variables used in regression analyses is presented in Table 11.1.

Table 11.1 Variables used in Regression Analyses

Variable	Type of Variable	Values	Data Source
Institutional Characteristics			
enrollment	item		IPEDS[1]
institutional type	item	Associate of Arts Baccalaureate Master's Doctoral	IPEDS

Variable	Type of Variable	Research Values	Data Source
External Influences on Student Assessment			
accrediting region	item (dummied)	Middle States North Central New England Northwest Southern Western	IPEDS
accrediting purpose	item	Scale range[2] = 1-4	ISSA[3]
accrediting influence	item	1 = negative influence 2 = not a factor 3 = either a reason to initiate or to increase involvement 4 = both a reason to initiate and to increase involvement	ISSA
state initiative	item	1 = No state plan 2 = State policy 3 = State statute 4 = Combination of policy & statute	SAS[4]
state approach	item	1 = No indicators or outcomes 2 = Institutional specific 3 = Common for some 4 = Common for all	SAS
state purpose	item	Scale range[2] = 1-4	ISSA
Institutional Approach to Student Assessment			
postcollege assessment	factor	Alpha = .83 Scale range[5] = 1-4 Mean = 2.27	ISSA
cognitive assessment	factor	Alpha = .71 Scale range[5] = 1-4 Mean = 1.62	ISSA
affective assessment	factor	Alpha = .68 Scale range[5] = 1-4 Mean = 1.74	ISSA
number of instruments	additive index	Range = 0-24 Mean = 9.35	ISSA
student-centered methods	factor	Alpha = .61 Scale range = 1-4[6] Mean = 1.37	ISSA

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Variable	Type of Variable	Values	Data Source
external methods	factor	Alpha = .63 Scale range = 1-4[6] Mean = 2.04	ISSA
number of studies	additive index	Range = 0-9 Mean = 2.20	ISSA
number of reports	additive index	Range = 0-5 Mean = 2.47	ISSA
Institutional Support for Student Assessment			
mission emphasis	additive index	Range = 0-3 Mean = 1.48	ISSA
internal purposes	factor	Alpha = .79 Scale range[3] = 1-4 Mean = 2.48	ISSA
administrative and governance activities	additive index	Range = 0-7 Mean = 2.33	ISSA
administrative and faculty support	additive index	Range = 4-20 Mean = 17.05	ISSA
formal centralized policy	item	1 = yes/ 0 = no	ISSA
institution wide planning group	item	1 = yes/ 0 = no	ISSA
Academic Management Policies and Practices			
budget decisions	additive index	Range = 0-2 Mean = .08	ISSA
computer support	additive index	Range = 0-3 Mean = .79	ISSA
access to information	additive index	Range = 0-5 Mean = 3.46	ISSA
distribution of reports	additive index	Range = 0-6 Mean = 2.43	ISSA
student involvement	factor	Alpha = .69 Scale Range = 1-5[7] Mean = 2.66	ISSA
professional development	factor	Alpha = .77 Scale Range = 1-5[7] Mean = 1.89	ISSA
student affairs	factor	Alpha = .84 Scale Range = 1-5[7] Mean = 1.94	ISSA

Variable	Type of Variable	Values	Data Source
faculty evaluation	factor	Alpha = .77 Scale Range = 1-5[7] Mean = 1.24	ISSA
academic planning and review policies	factor	Alpha = .84 Scale Range = 1-5[7] Mean = 2.79	ISSA
Institutional Uses and Impacts of Student Assessment			
academic decisions	factor	Alpha = .83 Scale Range = 1-4[8] Mean = 1.40	ISSA
faculty decisions	factor	Alpha = .79 Scale Range = 1-4[8] Mean = 1.28	ISSA
faculty impacts	factor	Alpha = .79 Scale Range = 1-4[9] Mean = 1.57	ISSA
student impacts	factor	Alpha = .82 Scale Range = 1-4[9] Mean = 1.62	ISSA
external impacts	factor	Alpha = .82 Scale Range = 1-4[9] Mean = 1.17	ISSA

[1] Integrated Postsecondary Education Data System

[2] 1 = no importance, 2 = minor importance, 3 = moderate importance, 4 = very important

[3] Inventory of Institutional Support for Student Assessment

[4] Assessment of Teaching and Learning for Improvement and Public Accountability: State Governing, Coordinating Board and Regional Accreditation Association Policies and Practices (Cole, Nettles, & Sharp, 1997)

[5] 1= not collected, 2 = collected for some, 3 = collected for many, 4 = collected for all students

[6] 1 = not used, 2 = used in some units, 3 = used in most units, 4 = used in all units

[7] 1 = not done at all, 2 = done in a few departments, 3 = done in some departments, 4 = done in many departments, 5 = done in most departments

[8] 1 = no action or influence unknown, 2 = action taken, data not influential, 3 = action taken, data somewhat influential, 4 = action taken, data very influential

[9] 1 = not monitored, do not know, 2 = monitored, negative impact, 3 = monitored, no known impact, 4 = monitored, positive impact

A total of twenty-five separate regression analyses were conducted for this study. In the first stage, five analyses — one for each of the five dependent use and impact measures — were conducted using data from all institutional respondents. In the second stage, twenty regression analyses were conducted. Within each of four institutional types (associate of arts, baccalaureate, master's, and research and doctoral), analyses were run for each of the five dependent use and impact measures. With the exception of excluding institutional type, the predictors used in these analyses were identical to those used for all respondents. Results obtained from these regression analyses are discussed below.

11.2 External and Institutional Influences on Institutional Uses and Impacts of Student Assessment for All Institutions

Results of stepwise regression analyses for each of the five use and outcome measures (academic decisions, faculty decisions, faculty impacts, student impacts and external impacts) for all institutions are summarized below. Complete results of these analyses appear in Table 11.2. The R^2 is provided for each model. This statistic is the multiple coefficient of determination and represents the total amount of variance accounted for in the outcome measure by the model. The beta coefficient (ß), its significance ($p < .05$ or .01), direction of influence (positive or negative) and the associated proportion of change in variance in the outcome measure (ΔR^2) is provided for each independent variable in the model.

11.2.1 Influences on Academic Decisions for All Institutions

The factor representing institutional use of student assessment information for academic decisions was regressed against forty independent variables (see Table 11.2). This outcome measure reflects the extent to which student assessment information influenced the following academic decisions: creating or modifying instructional experiences; developing or revising academic plans or structures; designing or reorganizing student affairs units; and allocating resources to academic units. For this analysis, the factor index for academic planning and review policies was omitted as an independent variable since many of the items comprising this index were quite similar to the items comprising the dependent measure for academic decisions. As the R^2 value shows, this model predicted a substantial proportion of the variance in institutional use of assessment information for academic decisions ($R^2 = .41$).

Fifteen external and institutional variables or indices emerged as statistically significant predictors of this use measure. Of these, conducting assessment for the purpose of internal

Table 11.2 External and Internal Influences on Institutional Uses and Impacts of Student Assessment for All Institutions

	Institutional Uses and Impacts of Student Assessment									
	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
R^2	.41**		.15**		.26**		.21**		.19**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences										
Middle States										
North Central	-.06*	<.01	-.12**	.01						
New England										
Southern	.06*	.01					.08**	.01		
Western										
State initiative										
State approach										
Accreditation purposes										
State purposes									.06*	<.01
Accrediting Influence										
Institutional Characteristics										
Enrollment										
Associate of Arts										
Baccalaureate			.13**	.01	.08**	.01				
Doctoral										
Research										
Institutional Approach										
Cognitive assessment	.09*	.01			.06*	<.01				
Affective assessment										
Post-college assessment										

	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
Number of instruments									.09**	.01
Student-centered methods	.09*	.01	.11**	.03						
External methods			.06*	<.01						
Number of studies	.14**	.06	.10*	.02	.18**	.10	.16**	.04	.11**	.04
Organizational and Administrative Support										
Mission emphasis									.06*	<.01
Internal purposes	.14**	.14								
Admin. & governance activities	.05*	<.01			.13**	.03				
Administrator & faculty support	.06**	<.01								
Formal centralized policy										
Institution-wide planning group			-.06*	<.01	.06*	<.01				
Conducted evaluation	.06**	<.01			.10**	.01	.07**	.01	.07**	.01
Assessment Management Policies & Practices										
Academic planning & review	n/inc		.11**	.05	.11**	.06	.17**	.11	.11**	.09
Budget decisions			.07**	.01					.06*	<.01
Computer support	.06**	<.01					.08**	.01	.10**	.01
Access to information			.09**	.01						
Distribution of reports	.10**	.02			.09**	.01	.07**	<.01	.08**	.02
Student involvement	.10**	.03							.05*	<.01
Professional development	.11**	.01	.11**	.01	.12**	.02				
Student affairs	.12**	.09					.10**	.02		
Faculty evaluation	.11**	.03	n/inc		.08**	.01	.12**	.01	.12**	.02

$^{*}p < .05$; $^{**}p < .01$

Note: Accrediting region was a categoriacl variable; Northwest accrediting region was the omitted category. Institutional type was a categorical variable; Master's institutions was the omitted category.

improvement was the strongest predictor ($ß = .14, p < .01, \Delta R^2 = .14$) followed by having policies involving student affairs administrators and staff in professional development for student assessment ($ß = .12, p < .01, \Delta R^2 = .09$) and the total number of assessment studies conducted ($ß = .14, p < .01, \Delta R^2 = .06$). Other variables that contributed 2% or greater change in total variance were policies involving students in assessment activities ($ß = .10, p < .01, \Delta R^2 = .03$), policies linking student assessment to faculty evaluation ($ß = .11, p < .01, \Delta R^2 = .03$) and the distribution of student assessment reports ($ß = .10, p < .01, \Delta R^2 = .02$). The remaining statistically significant predictors (belonging to the North Central accrediting region, belonging to the Southern accrediting region, collecting data on cognitive competencies, using student-centered assessment methods, number of administrative and governance activities promoting assessment, extent of administrator and faculty support for assessment, having evaluated the assessment approach, computer support for assessment information, and professional development on assessment for administrators and faculty) did not contribute more than 1% of the variance in academic decisions.

The largest number of significant predictors (six) came from the domain of assessment management policies and practices. Together, these variables accounted for 19% of the variance in academic decision uses although most was attributable to professional development policies for student affairs personnel. This finding underlines the importance of assessment management policies and practices as mechanisms for integrating assessment activities into institutional functioning and decision making. The domain of organizational and administrative support for assessment accounted for 17% of the variance and contributed four significant predictors. This finding suggests the importance of institutional leadership promoting assessment as an institutionally-relevant and valued activity if assessment results are to be used in academic decision making. Institutional approach to student assessment accounted for 8% of the variance with the collection of data on students' cognitive competencies, use of student-centered assessment methods, and particularly, conducting studies of student assessment data emerging as important influences. In comparison, the domains of institutional characteristics and external influences appear to be less influential in determining the extent of institutional use of student assessment information in academic decisions.

11.2.2 Influences on Faculty Decisions for All Institutions

Faculty decisions is a factor index reflecting the extent to which student assessment information influenced decisions regarding faculty promotion, tenure, salary increases or rewards (see Table 11.2). This outcome measure was regressed against forty independent variables. For this analysis, the factor for faculty evaluation policies regarding student assessment was excluded from the model because several items comprising this factor were quite similar to those in the outcome measure. Compared to the first analyses discussed, this model explained relatively little variance ($R^2 = .15$). This result can be attributed to the relatively low use of assessment information in faculty-related decisions among all institutions.

Ten variables/indices emerged as statistically significant predictors of institutions using student assessment information to make faculty decisions. Incorporating assessment information into academic planning and review processes was the strongest predictor ($\beta = .11, p < .01, \Delta R^2 = .05$) followed by using student-centered assessment methods ($\beta = .11, p < .01, \Delta R^2 = .03$) and the total number of assessment studies conducted ($\beta = .10, p < .01, \Delta R^2 = .02$). The seven remaining statistically significant variables (being in the North Central accrediting region, baccalaureate institutional type, using external assessment methods, having an institution-wide assessment planning group, using assessment information to make budget decisions, access to assessment information, and professional development policies on student assessment for faculty and administrators) each accounted for no more than 1% of change in the variance of faculty decisions.

In this model, the largest number of significant predictors (four) were from the domain of assessment management policies and practices and these accounted for 8% of the variance in faculty decision uses. This finding suggests, as above, the important connection between embedding student assessment within assessment management policies and practices — particularly using assessment results to inform academic planning and review. The domain of institutional approach to student assessment provided three significant predictors and accounted for 6% of the variance. In particular, the use of student-centered assessment methods which often require significant faculty involvement in their development and interpretation, and the conduct of studies examining the relationship between students' institutional experiences and academic performance, were associated with the likelihood of institutions linking assessment information with decisions concerning faculty. The remaining domains of organizational and administrative support, institutional characteristics and external influences were not important influences on this outcome measure, each contributing only one significant predictor and accounting for 1% or less of the variance.

11.2.3 Influences on Faculty Impacts for All Institutions

Faculty impacts is a factor index reflecting the extent to which student assessment information had a positive impact on faculty satisfaction, discussions of undergraduate education, interest in teaching, and changes in teaching methods. This index and the remaining two measures of assessment impacts were regressed against forty-one independent variables (see Table 11.2). These predictors explained 26% of the variance in faculty impacts of student assessment ($R^2 = .26$).

Ten variables/indices were statistically significant predictors of achieving positive faculty impacts. The strongest of these was the total number of assessment studies conducted ($\beta = .18$, $p < .01$, $\Delta R^2 = .10$) and incorporating student assessment information into processes for academic planning and review ($\beta = .11$, $p < .01$, $\Delta R^2 = .06$). To a lesser extent, the number of administrative and governance activities used to promote student assessment ($\beta = .13$, $p < .01$, $\Delta R^2 = .03$) and policies providing professional development on assessment for academic administrators and faculty members ($\beta = .12$, $p < .01$, $\Delta R^2 = .02$) contributed to faculty impacts. None of the remaining statistically significant predictors (baccalaureate institutional type, collecting data on students' cognitive competencies, having an institution-wide assessment planning group, having evaluated the assessment approach, distribution of assessment reports, and having policies linking faculty evaluation to student assessment) contributed more than 1% to the change in variance in faculty impacts.

The domains of assessment management policies and practices, and organizational and administrative support contributed the largest number of significant predictors (four and three predictors, respectively). They accounted for 10% and 5% of the variance in faculty impacts thus providing some support for the importance of these two domains in promoting the impact of student assessment information. However, a single institutional approach to student assessment index, the number of assessment studies conducted, emerged as the strongest predictor overall accounting for 10% of the variance. The domains of external influences and internal characteristics had comparatively little influence on achieving faculty-related impacts from assessment.

11.2.4 Influences on Student Impacts for All Institutions

Student impacts is a factor index reflecting the extent to which student assessment information had a positive impact on students' retention or graduation, grade performance, achievement on external examinations and satisfaction (see Table 11.2). This model accounted for 21% of the variance in this outcome measure ($R^2 = .21$).

Eight variables/indices were statistically significant predictors of student impacts. Of these, the strongest was incorporating assessment information into academic planning and review processes ($\beta = .17$, $p < .01$, $\Delta R^2 = .11$) followed by the total number of assessment studies conducted ($\beta = .16$, $p < .01$, $\Delta R^2 = .04$) and policies concerning professional development on assessment for student affairs administrators or staff ($\beta = .10$, $p < .01$, $\Delta R^2 = .02$). The remaining significant predictors (belonging to the Southern accrediting region, having evaluated the assessment approach, computer support for assessment information, distribution of assessment reports and policies linking assessment to faculty evaluation decisions) each contributed no more than 1% to the change in the variance of student impacts.

Assessment policies and practices produced the greatest number (five) of significant predictors and accounted for 17% of the variance. In particular, linking assessment information to academic planning and review processes appeared as the strongest determinant of institutions achieving positive assessment-related impacts on students' performance. In a related vein, involving student affairs professional in learning about assessment was conducive to using assessment information to improve student performance. The institutional approach domain contributed only one significant, but important, predictor. Once again, institutions that undertake analyses of the relationships between aspects of students' institutional experiences and their academic performance were more likely to document positive student impacts from assessment than those that conducted no such studies. The domains of organizational and administrative support for assessment and external influences each contributed one significant but comparatively less important predictor, while no institutional characteristics were significant predictors of student impacts.

11.2.5 Influences on External Impacts for All Institutions

External impacts is a factor index reflecting the extent to which student assessment information had a positive impact on external indicators of institutional performance such as state funding allocation, accreditation evaluations and institutional reputation (see Table 11.2). This model accounted for 19% of the variance in this outcome measure ($R^2 = .19$).

Eleven variables were statistically significant predictors. The strongest of these was incorporating assessment information into academic planning and review processes ($\beta = .11, p < .01, \Delta R^2 = .09$), total number of assessment studies conducted ($\beta = .11, p < .01, \Delta R^2 = .04$), and to a lesser extent, linking assessment to faculty evaluation criteria ($\beta = .12, p < .01, \Delta R^2 = .02$) and the number of assessment reports distributed ($\beta = .08, p < .01, \Delta R^2 = .02$). The remaining significant predictors (conducting assessment for state purposes, total number of assessment instruments used, mission emphasis, having evaluated the assessment approach, using assessment information to make budget decisions, computer support for assessment information, and policies involving students in assessment) each contributed 1% or less to the change in variance in external impacts from assessment.

The domain of assessment management policies and practices provided the greatest number of significant predictors of external impacts (six) which accounted for 16% of the variance. This finding reinforces the importance of embedding assessment activities within ongoing assessment policies and processes if institutions are to reap observable assessment-related impacts. The institutional approach variable of number of assessment studies conducted was again an important predictor. The domains of organizational and administrative support made little significant contribution to realizing positive external impacts. Two variables, mission emphasis and evaluating the institution's student assessment process, contributed only 2% of the variance. Conducting assessment for state purposes was the only external influence variable that was a significant predictor; it contributed less than 1% of change in the variance. No institutional characteristics were significant predictors of external impacts.

11.2.6 Summary of Regression Analyses for All Institutions

Based on regression results for data from all institutions, it appears this model is most useful for predicting institutional use of student assessment information to make academic decisions. To a lesser extent, it is capable of predicting the extent to which institutions will achieve faculty impacts, student impacts, and external impacts from assessment, or will use assessment information to make faculty-related decisions. These differences in predictive capacity are partly due to the distribution of these outcome measures across all institutions.

The profile of statistically significant predictors varied somewhat for each outcome measure considered. However, several variables emerged as important predictors across all outcome measures. Most prominent across the analyses of all five use and impact variables were incorporating assessment information into academic planning and review processes and the total number of assessment studies conducted. The consistent appearance of these variables as strong, significant predictors in each analysis in which they were included suggests these are essential means by which institutions can promote the use of assessment information to improve institutional performance. Other variables that emerged as important predictors were having evaluated the assessment approach, distribution of assessment reports, and linking assessment to faculty evaluation policies. Conversely, variables related to external influences and institutional characteristics explained little of the variance in these outcome measures.

11.3 External and Institutional Influences on Institutional Uses and Impacts of Student Assessment by Institutional Type

In the second stage of multivariate analyses, regression analyses were conducted for each of the five dependent use and impact measures within the following types of institutions: associate of arts, baccalaureate, master's, and research and doctoral. Based on an ANOVA post-hoc analysis, a comparison of scores on the dependent variables for research and doctoral institutions revealed no significant differences; thus, they were combined for these analyses to increase the number of cases available. The following tables present the statistically significant predictors for the five dependent use and impact measures by institutional type.

11.3.1 External and Institutional Influences on Institutional Uses and Impacts of Student Assessment for Associate of Arts Institutions

Table 11.3 presents the statistically significant predictors for the five regression analyses conducted for associate of arts institutions.

Academic Decisions. The first analysis, in which academic decisions was regressed against the independent variables, predicted 41% of the variance in this outcome measure ($R^2 = .41$). This amount was equivalent to the associated model estimated for all institutional types. Eleven variables/indices were statistically significant predictors (at the $p < .01$ or $p < .05$ significance level) of institutions using assessment information to make academic decisions. Having policies concerning professional development on assessment for student affairs administrators or staff was the strongest of these ($\beta = .16$, $p < .01$, $\Delta R^2 = .14$). Even though it had a lower level of statistical significance than some of the other predictors, collecting data on students' cognitive competencies accounted for the second largest change in variance of academic decision uses ($\beta = .10$, $p < .05$, $\Delta R^2 = .09$). Other strong predictors of using assessment information for academic decisions were the total number of assessment studies conducted ($\beta = .16$, $p < .01$, $\Delta R^2 = .05$), conducting assessment for internal purposes ($\beta = .12$, $p < .01$, $\Delta R^2 = .03$), the number of assessment reports distributed ($\beta = .14$, $p < .01$, $\Delta R^2 = .02$), using student-centered assessment methods ($\beta = .13$, $p < .01$, $\Delta R^2 = .02$) and belonging to the Southern accrediting region ($\beta = .12$, $p < .01$, $\Delta R^2 = .02$). Collecting data on former students'

Table 11.3 External and Internal Influences on Institutional Uses and Impacts of Student Assessment for Associate of Arts Institutions (N=548)

	Institutional Uses and Impacts of Student Assessment									
	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
R^2	.41**		.12**		.28**		.22**		.23**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences										
North Central			-11**	.02						
Southern	.12**	.02								
State approach					-.09*	.01				
Accreditation purposes			-.09*	.01	-.12**	.01				
Institutional Approach										
Cognitive assessment	.10*	.09								
Post-college assessment	.08*	.01								
Number of instruments									.09*	.01
Student-centered methods	.13**	.02			.09*	.01				
Number of studies	.16**	.05	.16**	.03	.14**	.06	.14**	.03	.10*	.01
Organizational & Administrative Support										
Internal purposes	.12**	.03								
Admin. & gov. activities					.17**	.04			.12**	.03
Institution-wide planning group			-.09*	.01						
Conducted evaluation					.08*	.01				
Assessment Management Policies & Practices										
Academic planning & review	n/inc		.15**	.05	.10*	.02	.21**	.13	.13**	.10
Budget decisions									.08*	.01
Computer support	.10**	.01			.09*	.01	.15**	.04	.18**	.05
Distribution of reports	.14**	.02								
Student involvement	.08*	.01							.10*	.01
Professional development			.12**	.01	.17**	.11				
Student affairs	.16**	.14					.13**	.02		
Faculty evaluation	.10**	.01	n/inc		.11*	.01	.11**	.01	.13**	.02

*p < .05; **p < .01

competencies, computer support for assessment information, having policies to involve students in assessment activities, and linking assessment with faculty evaluation policies were also statistically significant predictors but contributed 1% or less to the variance in academic decision uses.

As was the case in the overall model for academic decisions, the assessment management policies and practices domain contributed many of the significant predictors of this outcome measure. Almost as important were variables in the institutional approach to assessment domain. Conversely, the domain of organizational and administrative support for assessment contributed only one significant predictor. This finding suggests that for associate of arts institutions, the extensiveness and nature of data collection and analysis efforts is more likely to promote institutional use of assessment information for academic decision making than are patterns of administrative and governance support activities.

Faculty Decisions. In the second analysis, the model predicted only 12% of the variance in using assessment information to make faculty decisions ($R^2 = .12$). This result is partly attributable to the relative infrequency of this use of assessment information among associate of arts institutions (see Table 7.2). Six variables emerged as statistically significant predictors of this assessment use. Incorporating assessment information into processes for academic planning and review was the strongest positive predictor ($\beta = .15, p < .01, \Delta R^2 = .05$) followed by the total number of assessment studies conducted ($\beta = .16, p < .01, \Delta R^2 = .03$) and having professional development policies on assessment for academic administrators and faculty ($\beta = .12, p < .01, \Delta R^2 = .01$).There were three negative predictors of this use of assessment information: belonging to the North Central accrediting region ($\beta = -.11, p < .01, \Delta R^2 = .02$), conducting assessment for accreditation purposes ($\beta = -.09, p < .05, \Delta R^2 = .01$) and having an institution-wide assessment planning group ($\beta = -.09, p < .01, \Delta R^2 = .01$). However, given the small amount of variance explained by these variables, their influence is clearly minimal.

Faculty Impacts. The regression analysis of faculty impacts explained 28% of the variance in this outcome measure ($R^2 = .28$). Ten variables/indices emerged as statistically significant predictors of positive impacts from assessment on faculty. For associate of arts institutions, providing professional development on assessment for academic administrators and faculty was the strongest positive predictor, contributing more than a third of the explained variance in faculty impacts ($\beta = .17, p < .01, \Delta R^2 = .11$). This finding suggests the provision of professional development is a powerful way for these institutions to promote the use of student assessment among faculty. Other strong positive predictors included the total number of assessment studies conducted ($ß = .14, p < .01, \Delta R^2 = .06$), number of administrative and governance activities undertaken to promote student assessment ($ß = .17, p < .01, \Delta R^2 = .04$), and incorporation of assessment information into academic planning and review processes ($ß = .10, p < .01, \Delta R^2 = .02$). Six other predictors, although statistically significant, each contributed only 1% of the variance in faculty impacts. Four were positive predictors: linking assessment to faculty evaluation policies, computer support for assessment information, using student-centered assessment methods and evaluating the assessment approach. Two were negative predictors: conducting assessment for state purposes and for accreditation purposes. These negative relationships, although of small magnitude, suggest that conducting assessment for external purposes may be incompatible with promoting faculty support and use of assessment in associate of arts institutions.

Student Impacts. The regression model predicting positive impacts from assessment on student performance explained 22% of the variance in this outcome measure ($R^2 = .22$). Five variables/indices were statistically significant predictors. The most important of these was the extent to which institutions incorporated assessment information into academic planning and review processes ($ß = .21, p < .01, \Delta R^2 = .13$); this index contributed more than half of the explained variance in the model. Other predictors were, in descending order of their contribution to the R^2 statistic, computer support for assessment information ($ß = .15, p < .01, \Delta R^2 = .04$), total number of assessment studies conducted ($ß = .14, p < .01, \Delta R^2 = .03$), professional development policies on assessment for student affairs administrators and staff ($ß = .13, p < .01, \Delta R^2 = .02$) and policies linking assessment to faculty evaluation ($ß = .11, p < .01, \Delta R^2 = .01$).

External Impacts. The results of this final regression analysis show the model was slightly better at predicting external impacts from assessment in associate of arts institutions than was the case for all institutions ($R^2 = .23$). Eight variables/indices were statistically significant predictors. Chief among these was incorporating assessment information into academic planning and review

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processes ($\beta = .13, p < .01, \Delta R^2 = .10$) followed in importance by computer support for assessment information ($\beta = .18, p < .01, \Delta R^2 = .05$), number of administrative and governance activities used to promote assessment ($\beta = .12, p < .01, \Delta R^2 = .03$), and linking assessment to faculty evaluation policies ($\beta = .13, p < .01, \Delta R^2 = .02$). The remaining significant predictors (number of assessment instruments used, number of assessment studies conducted, use of assessment information for budget decisions, and policies involving students in assessment) contributed 1% each to the variance in external impacts.

Summary. In general, the models predicting the five outcome measures worked as well for associate of arts institutions as they did for respondents from all types of institutions. Based on the R^2 values for each analysis, the model for academic decisions worked best at predicting its outcome measure. Several variables/indices appeared as significant predictors across all or several outcome measures. As was observed in the previous analyses of data from all institutions, incorporating assessment information into academic planning and review processes was a consistently strong predictor of assessment uses and impacts followed by the total number of assessment studies conducted. For associate of arts institutions, computer support for assessment information also emerged as an important predictor as did linking assessment with faculty evaluation policies. Assessment management policies and practices and, to a lesser degree, organizational and administrative support were the conceptual domains that contributed the greatest number of significant predictors. Variables related to the institutional approach to assessment also figured quite extensively as predictors in several of the models.

11.3.2 Regression Results for Baccalaureate Institutions

Table 11.4 presents the statistically significant predictors for each of the five regression analyses conducted for baccalaureate institutions.

Academic Decisions. The model predicting the use of assessment information for academic decisions in baccalaureate institutions explained 40% of the variance in this outcome measure ($R^2 = .40$). Seven variables/indices were statistically significant predictors of this assessment information use. Professional development policies on assessment for academic administrators

Table 11.4 External and Internal Influences on Institutional Uses and Impacts of Student Assessment for Baccalaureate Institutions (N=316)

	Institutional Uses and Impacts of Student Assessment									
	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
R^2	.40**		.31**		.29**		.24**		.22**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences										
North Central			-.14**	.02						
State purposes			.21**	.02						
Accrediting influence			-.17**	.04					-.12*	.02
Institutional Characteristics										
Control (1=pub, 2=priv)			.12*	.01						
Institutional Approach										
Cognitive assessment			.17**	.03					.17**	.02
Number of instruments	.13**	.02								
Student-centered methods			.17**	.02						
External methods			.17**	.06						
Number of studies	.16**	.03			.24**	.14	.19**	.05		
Organizational & Administrative Support										
Mission emphasis					.10*	.01			.11*	.01
Internal purposes	.19**	.09								
Admin. & gov. activities					.21**	.04				
Administrator & faculty support			.13**	.02						
Formal centralized policy							-.12*	.01		
Institution-wide planning group									-.12*	.01
Conducted evaluation			-.10*	.01	.11*	.01	.13*	.01	.16**	.03
Assessment Management Policies & Practices										
Academic planning & review	n/inc				.22**	.07	.24**	.12	.16**	.10
Budget decisions					-.11*	.01				
Access to information			.14**	.09						
Student involvement	.16**	.03								
Professional development	.12*	.17								
Student affairs	.12*	.01					.18**	.03		
Faculty evaluation	.18**	.05	n/inc						.14*	.03

*$p < .05$; **$p < .01$

and faculty was only significant at the .05 level but accounted for the largest proportion of the variance in academic decisions ($\beta = .12, p < .05, \Delta R^2 = .17$). Conducting assessment for the purpose of internal improvement ($\beta = .19, p < .01, \Delta R^2 = .09$) and policies linking assessment and faculty evaluation ($\beta = .18, p < .01, \Delta R^2 = .05$) also contributed positively to the explained variance, followed by the total number of assessment studies conducted ($\beta = .16, p < .01, \Delta R^2 = .03$), policies involving students in assessment activities ($\beta = .16, p < .01, \Delta R^2 = .03$), the number of assessment instruments used ($\beta = .13, p < .01, \Delta R^2 = .02$) and finally, policies providing professional development on assessment for student affairs personnel ($\beta = .12, p < .05, \Delta R^2 = .01$).

These findings suggest that baccalaureate institutions that provide support through assessment management policies and practices, particularly those concerning professional development, will make greater use of assessment information in academic decisions. For these institutions, it may be more important to emphasize professional development policies directed at academic administrators and faculty and less important to emphasize policies related to student affairs administrators and staff. It also appears that baccalaureate institutions who view internal improvement as an important purpose of assessment will be more likely to use collected assessment information in institutional decision making.

Faculty Decisions. The regression analysis examining the use of assessment information for faculty decisions was better at predicting this outcome measure in baccalaureate institutions than was the case for other types of institutions. This difference is partly due to the finding that baccalaureate institutions were more likely than other types of institutions to report using assessment information to make faculty decisions (see Table 7.2). Ten statistically significant predictors were identified; of these, seven were positive predictors and three were negative predictors. Together, these variables/indices explained 31% of the variance in faculty decisions ($R^2 = .31$).

The positive predictor accounting for the most variance in faculty decision uses of assessment information was the breadth of access among internal personnel to assessment information on individual students ($\beta = .14$, $p < .01$, $\Delta R^2 = .09$). This was the only significant predictor from among assessment management policies and practices variables. Other positive predictors were, in descending order of explained variance in faculty decisions, the use of external assessment methods ($\beta = .17$, $p < .01$, $\Delta R^2 = .06$), collecting data on students' cognitive competencies ($\beta = .17$, $p < .01$, $\Delta R^2 = .03$), conducting assessment for state purposes ($\beta = .21$, $p < .01$, $\Delta R^2 = .02$), using student-centered assessment methods ($\beta = .17$, $p < .01$, $\Delta R^2 = .02$), extent of administrator and faculty support for assessment ($\beta = .13$, $p < .01$, $\Delta R^2 = .02$), and being a private rather than a public institution ($\beta = .12$, $p < .05$, $\Delta R^2 = .01$). These findings suggest that baccalaureate institutions that adopt an extensive student assessment approach including the use of innovative assessment methods, provide broad internal access to student assessment information, have internal support for assessment, perceive state requirements as an important purpose of assessment, and are privately controlled will be more likely to use assessment information in decisions regarding faculty promotion and rewards.

Conversely, viewing accreditation requirements as an important influence on assessment activities ($\beta = -.17$, $p < .01$, $\Delta R^2 = .04$), belonging to the North Central accrediting region ($\beta = -.14$, $p < .01$, $\Delta R^2 = .02$) and, to a lesser extent, having evaluated the assessment approach ($\beta = -.10$, $p < .05$, $\Delta R^2 = .01$) were negative predictors of faculty decisions being influenced by assessment information. This suggests that regionally-specific accreditation requirements concerning student assessment may differentially influence the likelihood of institutions using assessment information for faculty decisions in baccalaureate institutions.

Faculty Impacts. This model explained 29% of the variance in faculty impacts from assessment in baccalaureate institutions ($R^2 = .29$). Six statistically significant predictors emerged, all but one of which were positive. The total number of assessment studies conducted by baccalaureate institutions was the strongest positive predictor, accounting for almost half of the explained variance in faculty impacts ($\beta = .24$, $p < .01$, $\Delta R^2 = .14$). Other positive predictors were the extent to which assessment information was incorporated in academic planning and review processes ($\beta = .22$, $p < .01$, $\Delta R^2 = .07$) and the number of institution-wide administrative and governance activities promoting assessment ($\beta = .21, p < .01, \Delta R^2 = .04$). Having evaluated the assessment approach and having an institutional mission emphasis on undergraduate education and/or assessment were also positive predictors of faculty impacts from assessment but each were significant at the .05 level and contributed only 1% to explained variance in the model. Finally, using assessment information to make budget decisions among academic units was a negative predictor of positive faculty impacts from assessment; however, this index made only a minor contribution to the explained variance in the outcome measure ($\beta = -.11, p < .05, \Delta R^2 = .01$).

This profile of predictors clearly suggests that baccalaureate institutions who analyze collected assessment information to understand the curricular and co-curricular experiences that affect students' performance are more successful at enhancing faculty interest in teaching and encouraging their use of different teaching methods. Further, baccalaureate institutions that use assessment information in making academic planning and review decisions and that proffer institution-wide initiatives to promote assessment are more likely to document positive changes in faculty members' teaching attitudes and practices.

Student Impacts. The model regressing student impacts from assessment worked moderately well for baccalaureate institutions, explaining 24% of the variance in this outcome measure ($R^2 = .24$). Five variables/indices were statistically significant predictors of student impacts. Incorporating assessment information into academic planning and review processes was the strongest of these, accounting for half the explained variance in the model ($\beta = .24, p < .01, \Delta R^2 = .12$). The number of assessment studies conducted ($\beta = .19, p < .01, \Delta R^2 = .05$) and policies providing professional development on assessment for student affairs personnel ($\beta = .18, p < .01, \Delta R^2 = .03$) were also positive predictors, as to a lesser extent was having evaluated the assessment approach ($\beta = .13, p < .05, \Delta R^2 = .01$). Having a formal centralized institutional policy on student assessment was the only significant negative predictor of student impacts. However, its contribution to the explained variance in the model was very small ($\beta = -.12, p < .05, \Delta R^2 = .01$).

Together these findings suggest that baccalaureate institutions that invest institutional resources into analyzing collected assessment information, include this information in processes concerning academic planning and review, and promote professional development on assessment among student affairs personnel will be more likely to achieve positive impacts on student performance from their assessment activities.

External Impacts. The regression analysis of external impacts from assessment explained 22% of the variance in this outcome measure for baccalaureate institutions ($R^2 = .22$). Seven statistically significant predictors emerged. Positive predictors included incorporating assessment information into academic planning and review processes ($\beta = .16$, $p < .01$, $\Delta R^2 = .10$), having evaluated the assessment approach ($\beta = .16$, $p < .01$, $\Delta R^2 = .03$), linking assessment to faculty evaluation policies ($\beta = .14$, $p < .01$, $\Delta R^2 = .03$), collecting data on students' cognitive competencies ($\beta = .17$, $p < .01$, $\Delta R^2 = .02$), and having a mission emphasis on undergraduate education and assessment ($\beta = .11$, $p < .05$, $\Delta R^2 = .01$). These findings suggest, once again, the importance of including assessment information in academic planning and review processes. It may be that baccalaureate institutions that evaluate their assessment approach, include assessment-related criteria in faculty evaluation decisions and collect information on students' cognitive competencies are better able to communicate institutional improvements stemming from assessment to their external constituents.

Two significant negative predictors of external impacts from assessment were perceiving regional accreditation requirements as an influence on assessment activities ($\beta = -.12$, $p < .05$, $\Delta R^2 = .02$) and having an institution-wide group for assessment planning ($\beta = -.12$, $p < .05$, $\Delta R^2 = .01$). Both predictors were at the .05 level of significance and accounted for a very small proportion of explained variance in the model. Speculation concerning their negative relationship to achieving positive external impacts from assessment would be premature at this time, but further consideration in future research seems warranted.

Summary. Using R^2 values as the basis, the model for academic decisions worked best at predicting assessment uses and outcomes in baccalaureate institutions, followed by the model for faculty decisions. Profiles of significant predictors varied across the five outcome measures. This was most pronounced for the model predicting the use of assessment information in faculty decisions. Unlike the other models, most of the significant predictors of faculty decision uses of assessment information came from the domains of external influences, internal characteristics and institutional approach to assessment while only one predictor was related to assessment management policies and practices. Three variables/indices appeared as important predictors in three or more models. The extent to which baccalaureate institutions incorporate assessment information into academic planning and review processes, total number of assessment studies conducted and having evaluated the assessment approach were consistently important aspects of assessment-related uses and impacts. Presumably, baccalaureate institutions that analyze collected assessment information, include this information in academic planning and review efforts, and evaluate the effectiveness of their assessment approach are more likely to shape institutional decisions in ways that promote institutional, faculty and student performance.

11.3.3 Regression Results for Master's Institutions

Table 11.5 presents the statistically significant predictors for each of the five regression analyses conducted for master's institutions.

Academic Decisions. The regression analysis predicting the use of assessment information in academic decisions worked quite well for master's institutions, accounting for 49% of the variance in this outcome measure ($R^2 = .49$). Twelve variables were statistically significant predictors. The strongest of these, in terms of its contribution to the explained variance, was having policies that promoted student involvement in assessment activities ($\beta = .11$, $p < .05$, $\Delta R^2 = .18$). The number of assessment studies conducted was also a strong positive predictor ($\beta = .21$, $p < .01$, $\Delta R^2 = .11$) as were conducting assessment for internal purposes ($\beta = .21$, $p < .01$, $\Delta R^2 = .05$), having professional development policies on assessment for student affairs personnel ($\beta = .15$, $p < .01$, $\Delta R^2 = .05$), having evaluated the assessment approach ($\beta = .19$, $p < .01$, $\Delta R^2 = .03$), an institutional mission emphasis on undergraduate education and assessment ($\beta = .12$, $p < .01$, $\Delta R^2 = .02$), and linking assessment to faculty evaluation policies ($\beta = .09$, $p < .05$, $\Delta R^2 =$

Table 11.5 External and Internal Influences on Institutional Uses and Impacts of Student Assessment for Master's Institutions (N=315)

	Institutional Uses and Impacts of Student Assessment									
	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
R^2	.49**		.20**		.25**		.22**		.23**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences										
Southern			.13*	.01			.16**	.02		
State approach			.17**	.02						
State purposes									.16**	.04
Accrediting influence			.12*	.01						
Institutional Characteristics										
Control (1=pub, 2=priv)			-.13*	.02						
Enrollment									.13*	.02
Institutional Approach										
Cognitive assessment	.11*	.01								
Post-college assessment									.12*	.01
Number of instruments	-.13*	.01								
Number of studies	.21**	.11			.24**	.12	.27**	.13	.13*	.03
Organizational & Administrative Support										
Mission emphasis	.12**	.02								
Internal purposes	.21**	.05							.11*	.02
Formal centralized policy			.14*	.01	.14**	.06	.13*	.02		
Conducted evaluation	.19**	.03			.16**	.03				
Assessment Management Policies & Practices										
Academic planning & review	n/inc		.19**	.06			.16**	.05		
Budget decisions			.18**	.04			.14**	.02		
Access to information	.09*	.01								
Distribution of reports	.09*	.01			.15**	.03			.20**	.09
Student involvement	.11*	.18								
Professional development	.10*	.01	.16**	.02	.14*	.02				
Student affairs	.15**	.05								
Faculty evaluation	.09*	.02	n/inc							

*$p < .05$; **$p < .01$

.02). Collecting data on students' cognitive competencies, providing professional development on assessment for academic administrators and faculty, breadth of access to assessment information on individual students, and distribution of assessment reports were also positive predictors of using assessment information to make academic decisions but each contributed only 1% to the explained variance in the model. The number of assessment instruments used was the sole statistically significant negative predictor but it, too, accounted for only 1% of the variance in academic decision uses of assessment ($\beta = -.13$, $p < .05$, $\Delta R^2 = .01$).

Assessment management policies and practices, particularly those encouraging student involvement in assessment, figure prominently as predictors of this use of assessment information in master's institutions. In addition, the extent to which these institutions analyze the relationship between students' experiences and their performance and view internal improvement as an important purpose of assessment are strong positive correlates of this outcome measure. Conversely, external influences and institutional characteristics do not appear to shape this assessment use.

Faculty Decisions. Compared to the previous analysis, the model predicting the use of assessment information in faculty decisions did not work as well for master's institutions; only 20% of the variance in this outcome measure was explained ($R^2 = .20$). This comparatively poor model fit is partly attributable to the limited extent of this use of assessment information among master's institutions (see Table 7.2).

Eight variables emerged as statistically significant predictors. Three of the strongest of these came from the domain of assessment management policies and practices: incorporating assessment information into academic planning and review processes ($\beta = .19$, $p < .01$, $\Delta R^2 = .06$), using assessment information to make decisions regarding resource allocations to academic units ($\beta = .18$, $p < .01$, $\Delta R^2 = .04$), and professional development policies on assessment for academic administrators and faculty ($\beta = .16$, $p < .01$, $\Delta R^2 = .02$). This suggests that master's institutions that link assessment information to their academic planning and budget processes and that provide professional development on assessment for academic affairs personnel and faculty are also more likely to connect assessment with faculty evaluation decisions such as salary and promotion.

The external influences domain provided three positive predictors: having state requirements regarding common student performance indicators or outcomes ($\beta = .17, p < .01, \Delta R^2 = .02$), belonging to the Southern accrediting region ($\beta = .13, p < .05, \Delta R^2 = .01$), and perceiving accreditation requirements as an important influence on assessment efforts ($\beta = .12, p < .05, \Delta R^2 = .01$). This implies that state and accrediting region assessment initiatives affect the likelihood of master's institutions using assessment information for faculty decisions.

Finally, having a formal centralized institutional policy on student assessment was a weak positive predictor while being a private institution was the only significant negative predictor ($\beta = -.12, p < .05, \Delta R^2 = .02$). Institutional approach variables were not significantly related to this assessment use.

Faculty Impacts. In this model, five positive statistically significant predictors explained 25% of the variance in faculty impacts from assessment ($R^2 = .25$). The strongest of these was the total number of assessment studies conducted ($\beta = .24, p < .01, \Delta R^2 = .12$) followed in turn by having a formal centralized institutional policy on assessment ($\beta = .14, p < .01, \Delta R^2 = .06$), conducting an evaluation of the assessment approach ($\beta = .16, p < .01, \Delta R^2 = .03$), the breadth of distribution of assessment reports ($\beta = .15, p < .01, \Delta R^2 = .03$) and the provision of professional development on assessment for academic administrators and faculty ($\beta = .14, p < .05, \Delta R^2 = .02$). This profile of predictors suggests that master's institutions that adopt a standardized approach to assessment information collection, analyze and distribute this information, provide related professional development, and evaluate their assessment approaches are more likely to document associated positive impacts on faculty.

Student Impacts. The model regressing student impacts from assessment explained 22% of the variance in this outcome measure ($R^2 = .22$). Five variables/indices emerged as positive statistically significant predictors of student impacts: one predictor each from the domains of institutional approach, external influences, and organizational and administrative support, and two predictors from assessment management policies and practices. The number of assessment studies conducted accounted for more than half of the explained variance in the model ($\beta = .27, p < .01$,

$\Delta R^2 = .13$). This finding supports the importance of these institutions not only collecting but also analyzing assessment information if assessment efforts are to promote improved student performance. Incorporating assessment information into academic planning and review processes was the next strongest predictor ($\beta = .16$, $p < .01$, $\Delta R^2 = .05$). Belonging to the Southern accrediting region accounted for 2% of the variance in this outcome measure ($\beta = .16$, $p < .01$, $\Delta R^2 = .02$) as did the existence of a formal centralized institutional policy on assessment ($\beta = .13$, $p < .05$, $\Delta R^2 = .02$) and using assessment information in resource allocation decisions to academic units ($\beta = .14$, $p < .01$, $\Delta R^2 = .02$). These results suggest that master's institutions that have adopted a centralized internal approach to assessment, have established formal linkages between assessment and their academic planning and resource allocation processes, and are in the Southern accrediting region are more likely to document positive changes in their students' performance that are attributable to assessment efforts.

External Impacts. The model predicting positive external impacts from assessment in master's institutions accounted for 23% of the variance in this outcome measure ($R^2 = .23$). There were six positive statistically significant predictors distributed across the five conceptual domains of influences. In descending order of explained variance they were: distribution of assessment reports ($\beta = .20$, $p < .01$, $\Delta R^2 = .09$), conducting assessment for state purposes ($\beta = .16$, $p < .01$, $\Delta R^2 = .04$), number of assessment studies conducted ($\beta = .13$, $p < .05$, $\Delta R^2 = .03$), total institutional enrollment ($\beta = .13$, $p < .05$, $\Delta R^2 = .02$), conducting assessment for internal purposes ($\beta = .11$, $p < .05$, $\Delta R^2 = .02$), and collecting data on students' post-college performance ($\beta = .12$, $p < .05$, $\Delta R^2 = .01$). In many ways, this profile of predictors makes intuitive sense. That is, the greater the extent to which master's institutions perceive an external purpose such as state requirements as motivating their assessment efforts, collect information regarding the post-enrollment performance of former students, and produce and distribute reports of assessment results, the more likely they are to achieve positive external impacts from their assessment activities.

Summary. Of all five models analyzed, the model predicting the use of assessment information in academic decisions produced the best fit. The pattern of significant predictors varied for each outcome measure. Overall, the domains of internal influences exceeded those of external influences and institutional characteristics as significant predictors of assessment uses and impacts. The main exception to this general pattern was the model predicting the use of assessment information in faculty decisions. Regression results suggest this use of assessment information is more likely to stem from external than from internal motives. Six variables/indices emerged as important predictors in several regression models: number of assessment studies conducted, distribution of assessment reports, professional development on assessment for academic administrators and faculty, formal centralized institutional policy on assessment, and the incorporation of assessment information in academic planning and resource allocation decisions. Together these results imply that master's institutions characterized by extensive efforts to integrate assessment practices into ongoing institutional processes and that analyze and broadly communicate assessment results are more likely to use and be positively affected by assessment information.

11.3.4 Regression Results for Doctoral and Research Institutions

Table 11.6 presents the statistically significant predictors for each of the five regression analyses conducted for doctoral and research institutions.

Academic Decisions. The model regressing the use of assessment information in academic decisions worked well for doctoral and research institutions explaining 47% of the variance in this outcome measure ($R^2 = .47$). Eight variables/indices were statistically significant predictors. The strongest predictors, in terms of explained variance, came from the domain of assessment management policies and practices. These were providing professional development on assessment for academic administrators and faculty ($\beta = .28$, $p < .01$, $\Delta R^2 = .19$), including assessment-related criteria in policies for faculty evaluation ($\beta = .26$, $p < .01$, $\Delta R^2 = .11$) and policies promoting student involvement in assessment ($\beta = .17$, $p < .05$, $\Delta R^2 = .03$). The number of assessment studies conducted was also a strong predictor of this outcome measure ($\beta = .22$, $p <$

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Table 11.6 External and Internal Influences on Institutional Uses and Impacts of Student Assessment for Doctoral and Research Institutions (N=145)

	Institutional Uses and Impacts of Student Assessment									
	Academic Decisions		Faculty Decisions		Faculty Impacts		Student Impacts		External Impacts	
R^2	.47**		.04**		.34**		.36**		.26**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
Institutional Characteristics										
Control (1=pub, 2=priv)	-.15*	.02			-.15*	.05	-.20**	.03	-.23**	.05
Institutional Approach										
Post-college assessment					.17*	.05				
Number of studies	.22**	.07							.35**	.16
Organizational & Administrative Support										
Mission emphasis	-.16*	.02								
Internal purposes	.16*	.02								
Admin. & gov. activities					.26**	.12	.20**	.03		
Administrator & faculty support	.14*	.02								
Assessment Management Policies & Practices										
Access to information							.18*	.03		
Distribution of reports					.19*	.06	.16*	.05		
Student involvement	.17*	.03	.21*	.04						
Professional development	.28**	.19			.25**	.07				
Faculty evaluation	.26**	.11	n/inc				.42**	.22	.25**	.05

$*p < .05$; $**p < .01$

.01, $\Delta R^2 = .07$). The remaining significant predictors made comparatively smaller contributions to the explained variance in this model. Two of these were positive predictors from the organizational and administrative support for assessment domain: conducting assessment for internal purposes ($ß = .16$, $p < .05$, $\Delta R^2 = .02$) and the degree of administrative and faculty support for assessment ($ß = .14$, $p < .05$, $\Delta R^2 = .02$). Two were negative: being a privately controlled institution ($ß = -.15$, $p < .05$, $\Delta R^2 = .02$) and having an emphasis on undergraduate education and assessment in the institutional mission ($ß = -.16$, $p < .05$, $\Delta R^2 = .02$).

The relationship among the positive predictors and using assessment information in academic decisions appears relatively straightforward. Doctoral and research institutions that support assessment efforts by integrating them within management policies and practices, that study the relationship between students' institutional experiences and performance, and that have achieved a positive degree of support for assessment from administrators and faculty are more likely to use assessment information to shape academic decision making. The negative relationship between academic decision uses of assessment and institutional control suggests that private doctoral and research institutions do not use assessment information in academic decision making to the same extent as their public counterparts. Since this research focused on undergraduate student assessment, it is likely that information collected from these assessment efforts may have little effect on these primarily graduate education-oriented institutions' academic decisions. This may explain the negative relationship between mission emphasis and academic decision uses of assessment information.

Faculty Decisions. The use of assessment information in faculty decisions was not well predicted by this model ($R^2 = .04$). Only one index emerged as a statistically significant predictor. The extent of policies promoting student involvement in assessment explained 4% of the variance in this outcome measure ($\beta = .21$, $p < .05$, $\Delta R^2 = .04$). This result is partly attributable to the low frequency of this assessment use among doctoral and research institutions (see Table 7.2). Drawing further conclusions regarding the predictors of this assessment use among these institutions is inappropriate without further analysis.

Faculty Impacts. In contrast to the analysis discussed above, the model regressing faculty impacts from assessment accounted for 34% of the variance in this outcome measure, the best fit for this model among all types of institutions ($R^2 = .34$). Four variables/indices were statistically significant positive predictors of this measure. The strongest of these was the number of institution-wide administrative and governance activities undertaken to promote student assessment ($\beta = .26$, $p < .01$, $\Delta R^2 = .12$). This was followed by the provision of professional development on assessment for academic administrators and faculty ($\beta = .25$, $p < .01$, $\Delta R^2 = .07$), breadth of distribution of assessment reports ($\beta = .19$, $p < .05$, $\Delta R^2 = .06$) and collection of data on students' post-college competencies ($\beta = .17$, $p < .05$, $\Delta R^2 = .05$). This suggests that doctoral and research institutions that have visible administrative/leadership support for assessment, that develop policies to encourage student involvement and enhance administrators' and faculty members' knowledge of assessment-related issues, and that collect data on former students' employment, education and satisfaction are more likely to observe positive changes in faculty members' undergraduate teaching attitudes and practices. Conversely, being a private rather than a public institution was the only significant negative predictor of positive faculty impacts from assessment ($\beta = -.15$, $p < .05$, $\Delta R^2 = .05$).

Student Impacts. The model predicting student impacts from assessment also worked well for doctoral and research institutions. Five statistically significant predictors emerged accounting for 36% of the variance in this outcome measure ($R^2 = .36$). Of these predictors, using assessment-related criteria in faculty evaluation policies was clearly the strongest ($\beta = .42$, $p < .01$, $\Delta R^2 = .22$). This finding underlines the potential importance of this management policy as a lever to enhance faculty interest in issues related to undergraduate teaching and assessment. Other significant positive predictors included: the breadth of distribution of assessment reports ($\beta = .16$, $p < .05$, $\Delta R^2 = .05$), internal access to assessment information concerning individual students ($\beta = .18$, $p < .05$, $\Delta R^2 = .03$), and number of administrative and governance activities promoting student assessment ($\beta = .20$, $p < .01$, $\Delta R^2 = .03$). These results suggest doctoral and research institutions that provide regular access to student assessment information and demonstrate leadership support for assessment through institution-wide assessment initiatives are more likely to document positive impacts from assessment on students' achievement within and beyond the institution.

Again, being a privately controlled institution was the only significant negative predictor of this outcome measure ($\beta = -.20$, $p < .01$, $\Delta R^2 = .03$). Private institutions are not subject to the same degree of scrutiny from state officials as public institutions. Thus they may feel less pressure to document student impacts from assessment.

External Impacts. The regression analysis for external impacts from assessment accounted for 26% of the variance in this outcome measure ($R^2 = .26$). Three variables/indices were statistically significant predictors: two were positive and one was negative. The number of assessment studies conducted contributed the largest proportion of the explained variance in the model ($\beta = .35, p < .01, \Delta R^2 = .16$) followed by the extent to which assessment-related criteria were used in faculty evaluation policies ($\beta = .25, p < .01, \Delta R^2 = .05$). Being a privately controlled institution was a negative predictor of positive external impacts from assessment ($\beta = -.23, p < .01, \Delta R^2 = .05$).

These results suggest that doctoral and research institutions that analyze the relationship between their students' institutional experiences and academic performance, and link assessment involvement or performance data with faculty evaluation and rewards are more likely to enhance their performance on external indicators of performance such as state funding allocation, student application and acceptance rates and institutional reputation. Compared to their public counterparts, private doctoral and research institutions often enjoy higher institutional prestige, make less use of state funds, and are able to be more selective in their admissions processes. Thus, private control is less likely to be associated with gains in these external impacts from assessment.

Summary. As was the case for other types of institutions, the use of assessment information in academic decisions was the outcome measure best predicted by this model for doctoral and research institutions. The models predicting faculty and student impacts from assessment also worked comparatively well for doctoral and research institutions while the model predicting the use of assessment information in faculty decisions did not fit well.

The profile of statistically significant predictors varied for each of the five outcome measures but some common predictors were also observed. Variables from the external influences domain did not emerge as significant predictors in any model suggesting that the uses and impacts of assessment among doctoral and research institutions are generally unaffected by state-level and regional accreditation initiatives on assessment. Private institutional control was consistently negatively associated with assessment uses and impacts. The inclusion of assessment-related criteria in faculty evaluation policies was a strong positive predictor in three of the four analyses in which it was included. This suggests faculty evaluation policies may be a powerful institutional mechanism for promoting assessment uses and impacts. Finally, the provision of professional development opportunities on assessment for academic administrators and faculty, and number of assessment studies also appeared as strong positive predictors of using and achieving observable impacts from assessment information in doctoral and research institutions.

11.4 External and Internal Influences by Institutional Uses and Impacts of Assessment

The previous sections in this chapter have considered the results of regression analyses of the five assessment outcome measures for all institutional respondents and separately for each of four types of institutions. In this section, we examine similarities and differences in the patterns of statistically significant predictors for each outcome measure across the four types of institutions.

11.4.1 Predictors of Uses in Academic Decisions

Table 11.7 presents the statistically significant predictors of the academic decisions factor index for the four types of institutions considered in our analyses: associate of arts, baccalaureate, master's, and doctoral and research. Explained variance in this factor was quite high for all types of institutions, ranging from 40% for baccalaureate institutions to 49% for master's institutions. Both common and distinctive patterns of predictors of academic decision uses of assessment information were evident in the regression results for these four types of institutions.

For all types of institutions, the domains of external influences and institutional characteristics had little significant relationship to this use of assessment information. Conversely, the domains of institutional approach and of organizational and administrative support for assessment provided several statistically significant predictors. Two variables from these domains were consistently strong predictors of institutional use of assessment data to inform academic decisions: the number of studies conducted to analyze the relationship between students' institutional experiences and their performance, and the importance rating given to internal improvement as a purpose for engaging in student assessment efforts was a strong predictor. These results reinforce the importance of institutions not only collecting assessment data but also

Table 11.7 External and Internal Influences on Use of Student Assessment for Academic Decisions by Institutional Type

	Institutional Type							
	Associate of Arts N=548		Baccalaureate N=316		Master's N=315		Doctoral & Research N=145	
R^2	**.41****		**.40****		**.49****		**.47****	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences								
Southern	.12**	.02						
Institutional Characteristics								
Control (1=public, 2=private)							-.15*	.02
Institutional Approach								
Cognitive assessment	.10*	.09			.11*	.01		
Post-college assessment	.08*	.01						
Number of instruments			.13**	.02	-.13**	.01		
Student-centered methods	.13**	.02						
Number of studies	.16**	.05	.16**	.03	.21**	.11	.22**	.07
Organizational & Administrative Support								
Mission emphasis					.12**	.02	-.16*	.02
Internal purposes	.12**	.03	.19**	.09	.21**	.05	.16*	.02
Administrator & faculty support							.14*	.02
Conducted evaluation					.19**	.03		
Assessment Management Policies & Practices								
Computer support	.10**	.01						
Access to information					.09*	.01		
Distribution of reports	.14**	.02			.09*	.01		
Student involvement	.08*	.01	.16**	.03	.11*	.18	.17*	.03
Professional development			.12*	.17	.10*	.01	.28**	.19
Student affairs	.16**	.14	.12*	.01	.15**	.05		
Faculty evaluation	.10**	.01	.18**	.05	.09*	.02	.26**	.11

$^*p < .05$; $^{**}p < .01$

making efforts to systematically analyze this data. Further, they provide some support for scholars' contentions that assessment undertaken for internal rather than external purposes will be more likely to produce institutional improvements (Aper et al., 1990). The domain of assessment management policies and practices emerged as the most important influence on institutions' use of assessment information in academic decisions. For all institutional types, variables in this domain accounted for the greatest proportion of explained variance. This finding supports the views of scholars such as Ewell (1984, 1987a, 1987b, 1987c, 1988a, 1988b, 1997) and Banta (Banta & Associates, 1993; Banta et al., 1996) who assert such policies and practices are powerful institutional levers for promoting student assessment in colleges and universities.

However, regression results also revealed differences in predictors of academic decision uses across types of institutions. For associate of arts institutions only, the extent to which cognitive performance data was collected was a strong predictor of academic decision uses of assessment information. While the domain of assessment management policies and practices was an important source of influence for all institutions, the specific policies and practices that most effectively promote the use of assessment information in academic decision making varied with institutional type. For associate of arts institutions, professional development policies directed at student affairs personnel were most influential. In master's institutions, policies encouraging student involvement and providing professional development for student affairs personnel accounted for the most variance in this outcome measure. In baccalaureate, doctoral and research institutions, a broader array of policies emerged. Policies providing professional development for academic administrators and faculty members, policies linking assessment to faculty evaluation, and to a lesser extent, policies encouraging student involvement were strong predictors in this domain. These findings suggest that internal responsibility for student assessment varies by institutional type. Thus policies intended to promote student assessment must target correspondingly different internal constituent groups.

11.4.2 Predictors of Uses in Faculty Decisions

Table 11.8 presents the statistically significant predictors of the faculty decisions factor index for associate of arts, baccalaureate, master's, and doctoral and research institutions.

The ability of this model to predict institutional use of assessment information for faculty decisions varied considerably by institutional type. Explained variance ranged from 4% in doctoral and research institutions to 31% in baccalaureate institutions. Differences in this institutional use of assessment information may be reflective of corresponding differences in faculty autonomy in specific types of institutions. Overall, institutional characteristics and variables concerning

Table 11.8 External and Internal Influences on Use of Student Assessment for Faculty Decisions by Institutional Type

	Institutional Type							
	Associate of Arts N=548		Baccalaureate N=316		Master's N=315		Doctoral & Research N=145	
R^2	.12**		.31**		.20**		.04**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences								
North Central	-.11*	.02	-.14**	.02				
Southern					.13*	.01		
State approach					.17**	.02		
Accreditation purposes	-.09*	.01						
State purposes			.21**	.02				
Accrediting influence			-.17**	.04	.12*	.01		
Institutional Characteristics								
Control (1=public, 2=private)			.12*	.01	-.13*	.02		
Institutional Approach								
Cognitive assessment			.17**	.03				
Student-centered methods			.17**	.02				
External methods			.17**	.06				
Number of studies	.16**	.03						
Organizational & Administrative Support								
Administrator & faculty support			.13**	.02				
Formal centralized policy					.14*	.01		
Institution-wide group	-.09*	.01						
Conducted evaluation			-.10*	.01				
Assessment Management Policies & Practices								
Academic planning & review	.15**	.05			.19**	.06		
Budget decisions					.18**	.04		
Access to information			.14**	.09				
Student involvement							.21*	.04
Professional development	.12**	.01			.16**	.02		

*$p < .05$; **$p < .01$

organizational and administrative support for assessment had little significant relationship to this use of assessment information. The domain of assessment management policies and practices contributed the most and strongest predictors of this dependent measure. Beyond these similarities, patterns of statistically significant predictors differed for each type of institution.

External influences were most pronounced for baccalaureate institutions, played a weaker role in associate of arts and master's institutions, and did not contribute significantly to faculty decision uses of assessment information in doctoral and research institutions. The institutional approach domain made the greatest contribution to faculty decisions uses of assessment information for baccalaureate institutions, was a weaker source of influence in associate of arts institutions, and did not contribute significantly to faculty decisions uses in master's, doctoral and research institutions. Among baccalaureates, using assessment methods that involve external participants and collecting data on students' cognitive competencies were strong predictors. Considering assessment management policies and practices, significant predictors in this domain were quite unique to each institutional type. Incorporating assessment information into academic planning and review processes was an important predictor of faculty decision uses of assessment information for associate of arts institutions. For baccalaureate institutions, providing internal constituents with access to student assessment information was a strong contributor to faculty decision uses. Among master's institutions, incorporating assessment data into academic planning and review processes and linking assessment data to resource allocation decisions were strong predictors. Finally, having policies encouraging student involvement in assessment was the only strong predictor of using assessment information in faculty-related decisions for doctoral and research institutions. These findings support the important role of assessment management policies and practices in promoting the use of assessment information. They again suggest that the importance of specific types of policies and practices in promoting assessment varies by institutional type.

11.4.3 Predictors of Faculty Impacts

Table 11.9 presents the statistically significant predictors of the faculty impacts index for associate of arts, baccalaureate, master's, and doctoral and research institutions. This model worked moderately well for all types of institutions. Explained variance in faculty impacts from assessment ranged from 25% to 34%.

Table 11.9 External and Internal Influences on Faculty Impacts of Student Assessment by Institutional Type

	Institutional Type							
	Associate of Arts N=548		Baccalaureate N=316		Master's N=315		Doctoral & Research N=145	
R^3	.28**		.29**		.25**		.34**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences								
State approach	-.09*	.01						
Accreditation purposes	-.12**	.01						
Institutional Characteristics								
Control (1=public, 2=private)							-.15*	.05
Institutional Approach								
Post-college assessment							.17*	.05
Student-centered methods	.09*	.01						
Number of studies	.14**	.06	.24**	.14	.24**	.12		
Organizational & Administrative Support								
Mission emphasis			.10*	.01				
Admin. & governance activities	.17**	.04	.21**	.04			.26**	.12
Formal centralized policy					.14**	.06		
Conducted evaluation	.08*	.01	.11*	.01	.16**	.03		
Assessment Management Policies & Practices								
Academic planning & review	.10*	.02	.22**	.07				
Budget decisions			-.11*	.01				
Computer support	.09*	.01						
Distribution of reports					.15**	.03	.19*	.06
Professional development	.17**	.11			.14*	.02		
Faculty evaluation	.11**	.01					.25**	.07

*$p < .05$; **$p < .01$

Overall, variables from the domains of external influences and institutional characteristics were not important sources of influence on faculty impacts attributed to institutions' assessment activities. The index for total number of assessment studies conducted emerged as a very strong positive predictor of faculty impacts in all institutional types except doctoral and research institutions. Among doctoral and research institutions, collecting data on students' post-college competencies (e.g., professional outcomes, further education, satisfaction) was a strong predictor of faculty impacts. This may reflect the tendency of faculty in graduate-level institutions to place more responsibility on students for their own performance and thus to be less influenced by information concerning the relationship of students' institutional experiences to their performance. The number of institution-wide administrative and governance activities intended to promote assessment was a strong predictor of faculty impacts for all but master's institutions. Presumably, these initiatives demonstrate that leadership support for assessment and broad internal participation in decision making concerning assessment are positively related to achieving faculty impacts from assessment. The domain of assessment management policies and practices was again a consistently important influence on assessment-related outcomes. However, the strength of individual predictors within this domain varied by institutional type.

For associate of arts institutions, providing professional development for faculty and academic administrators was the strongest predictor of faculty impacts. For baccalaureate institutions, incorporating assessment information into academic planning and review processes was a significant predictor of faculty impacts. Distributing reports of assessment results was an important predictor among master's, doctoral and research institutions, while linking assessment to faculty evaluation was a strong predictor among doctoral and research institutions. These results suggest that profiles of effective assessment management policies and practices for promoting student assessment must be uniquely crafted for specific types of institutions.

11.4.4 Predictors of Student Impacts

Table 11.10 presents the statistically significant predictors of the student impacts index for associate of arts, baccalaureate, master's, and doctoral and research institutions.. This model worked best for doctoral and research institutions, explaining 36% of the variance. It did not work as well for the other types of institutions, explaining from 22% to 24% of the variance in student impacts from assessment.

For all types of institutions, the domains of external influences, institutional characteristics and administrative and governance support for assessment were of minor importance as predictors of positive student impacts from assessment. The assessment policies and practices domain provided the most significant predictors of this dependent measure. For all but doctoral and

Table 11.10 External and Internal Influences on Student Impacts of Student Assessment by Institutional Type

	Institutional Type							
	Associate of Arts N=548		Baccalaureate N=316		Master's N=315		Doctoral & Research N=145	
R^2	.22**		.24**		.22**		.36**	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences								
Southern					.16**	.02		
Institutional Characteristics								
Control (1=public, 2=private)							-.20**	.03
Institutional Approach								
Number of studies	.14**	.03	.19**	.05	.27**	.13		
Organizational & Administrative Support								
Admin. & governance activities							.20**	.03
Formal centralized policy			-.12*	.01	.13*	.02		
Conducted evaluation			.13*	.01				
Assessment Management Policies & Practices								
Academic planning & review	.21**	.13	.24**	.12	.16**	.05		
Budget decisions					.14**	.02		
Computer support	.15**	.04						
Access to information							.18*	.03
Distribution of reports							.16*	.05
Student affairs	.13**	.02	.18**	.03				
Faculty evaluation	.11**	.01					.42**	.22

*$p < .05$; **$p < .01$

research institutions, linking assessment data with academic planning and review processes, and conducting studies of assessment data were the most important influences on the likelihood of assessment leading to improved student performance. The comparative unimportance of these predictors for doctoral and research institutions may be due to these institutions' focus on graduate rather than undergraduate education.

In addition to the influences discussed above, computer support for assessment information was an important predictor of student impacts in associate of arts institutions. Compared to other types of institutions, associate of arts colleges tend to have a student body that is more diverse in terms of sociodemographic profile, academic preparedness and enrollment patterns. For these institutions, having the technical capacity to collect and integrate assessment information may be a particularly important precursor to being able to analyze and apply assessment results for the betterment of students' performance. Among baccalaureate institutions, providing professional development on assessment for student affairs personnel was a strong predictor of student impacts. This suggests that student affairs personnel play an important role in utilizing assessment results in these institutions.

Compared to other institutional types, the predictors of student impacts from assessment among doctoral and research institutions were distinctive. Including assessment-related criteria in faculty evaluation policies was the strongest predictor by far, accounting for two-thirds of the explained variance. Distribution of assessment reports, internal access to assessment information on individual students, and the number of administrative and governance activities promoting assessment were also strong positive predictors of student impacts. One institutional characteristic, private control, was a significant negative predictor. The apparent importance of linking assessment to faculty rewards in order to achieve positive student impacts from assessment may be attributable to the typical emphasis on research rather than teaching in these graduate-oriented institutions.

11.4.5 Predictors of External Impacts

Table 11.11 presents the statistically significant predictors of the external impacts index for associate of arts, baccalaureate, master's, and doctoral and research institutions. This model worked moderately well for all types of institutions. It explained from 22% to 26% of the variance in external impacts from assessment.

For most types of institutions, variables from the domains of external influences, institutional characteristics, institutional approach to assessment, and organizational and administrative support for assessment were of minor importance as predictors of external impacts of assessment. The assessment management policies and practices domain was the strongest source of influence on external impacts for all types of institutions except doctoral and research.

Table 11.11 External and Internal Influences on External Impacts of Student Assessment by Institutional Type

	Institutional Type							
	Associate of Arts N=548		Baccalaureate N=316		Master's N=315		Doctoral & Research N=145	
R^2	**.23****		**.22****		**.23****		**.26****	
	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2	Beta	ΔR^2
External Influences								
State purposes					.16**	.04		
Accrediting influence			-.12*	.02				
Institutional Characteristics								
Control (1=public, 2=private)							-.23**	.05
Enrollment					.13*	.02		
Institutional Approach								
Cognitive assessment			.17**	.02				
Post-college assessment					.12*	.01		
Number of instruments	.09*	.01			.13*	.03		
Number of studies	.10*	.01					.35**	.16
Organizational & Administrative Support								
Mission emphasis			.11*	.01				
Internal purposes					.11*	.02		
Admin. & governance activities	.12**	.03						
Institution-wide group			-.12*	.01				
Conducted evaluation			.16**	.03				
Assessment Management Policies & Practices								
Academic planning & review	.13**	.10	.16**	.10				
Budget decisions	.08*	.01						
Computer support	.18**	.05						
Distribution of reports					.20**	.09		
Student involvement	.10*	.01						
Faculty evaluation	.13**	.02	.14*	.03			.25**	.05

*$p < .05$; **$p < .01$

The strength of specific variables as predictors in this model varied considerably by institutional type.

Among associate of arts institutions, the strongest predictors were incorporating assessment information into academic planning and review processes, computer support for assessment information, and the number of administrative and governance activities promoting assessment. In baccalaureate institutions, the strongest predictors of external impacts were incorporating assessment information into academic planning and review processes followed by including assessment-related criteria in faculty evaluation policies and having evaluated the assessment process. The strongest predictors of external impacts from assessment among master's institutions were the distribution of assessment reports followed by conducting assessment in order to meet state requirements and the number of assessment instruments used. There were just three statistically significant predictors of external assessment impacts in doctoral and research institutions. The strongest was the total number of assessment studies conducted. Including assessment-related criteria in faculty evaluation policies was a positive but comparatively weaker predictor while being a private institution was a negative predictor of external impacts.

The importance of these findings must be tempered by the modest amounts of variance explained by this model. However, they still reinforce the need to customize support for student assessment for distinct types of institutions. For example, these findings suggest the importance of promoting student assessment through multiple means (technological support, leadership, and institutional processes) if assessment information is to have a positive impact on associate of arts institutions' relationships with their external constituencies. For baccalaureate institutions, linking assessment to academic planning processes is important. Distributing assessment reports and conducting assessment to fulfill state requirements are related to positive external impacts among master's institutions. More so than other types of institutions, doctoral and research universities appear to use results from assessment studies to promote their institution among external constituencies.

11.4.6 Summary of Predictors of Assessment Use and Impact Measures by Institutional Type

The regression models were most effective for predicting the use of assessment information in academic decisions and least effective for predicting the use of assessment information in faculty decisions. Differences in explained variance for each model are partly attributable to corresponding differences in the frequency with which institutions reported these assessment uses and impacts.

Some general patterns of predictors of assessment uses and impacts were evident across types of institutions. Overall, internal influences were stronger predictors than external influences. Among internal domains, assessment management policies and practices contributed the most and strongest predictors of assessment uses and impacts while institutional characteristics contributed the fewest and weakest predictors. The domains of institutional approach to assessment, and organizational and administrative support were moderately important sources of influence.

The following indices emerged as strong predictors of assessment use and impact measures across institutional types: incorporating assessment information into academic planning and review processes, total number of assessment studies conducted, number of administrative and governance activities promoting assessment, professional development on assessment for academic administrators and faculty, professional development on assessment for student affairs personnel, and including assessment-related criteria in faculty evaluation policies. Together, these findings give credence to forms of institutional support for student assessment advocated in the literature.

However, there was also substantial variation observed in the patterns of statistically significant predictors across types of institutions. This clearly suggests that effective structures, strategies and processes of institutional support for student assessment will be configured differently for specific types of institutions.

12. Evolution Not Revolution: A Concluding Summary

12.1 Overview

This survey, an Inventory of Institutional Support for Student Assessment, is the first comprehensive national survey of how higher education institutions approach and support undergraduate student assessment. After more than a decade of activity, it provides a base for examining the nature and extent of institutional efforts to make student assessment a common and widely used part of the academic management function at two-year and four-year colleges, and comprehensive and research universities. The results suggest a picture of an evolutionary — not revolutionary — pattern of adopting various student assessment approaches, of developing institutional mechanisms to support and promote assessment, and of using and monitoring the impact of assessment data on student and institutional performance.

In general, the results suggest the following: While requirements for student assessment emanating from state agencies and institutional accrediting bodies have stimulated the initial adoption of assessment activities among institutions, they appear to have little influence on the likelihood of institutions using and achieving positive impacts from student assessment information. The majority of institutions report engaging in some student assessment activity. But most often they have adopted only one or two types of student assessment measures, conduct the assessment at only one point in time during students' enrollment, and tend to use rather traditional, mostly quantitative methods of assessment. Institutions report moderate use of institution-wide governance, administrative and leadership activities intended to promote student assessment. Their introduction of policies and practices designed to support the use of student assessment is mixed, relying most often on efforts in the areas of academic planning and student involvement and seldom in areas such as rewarding and evaluating faculty. To date, institutional efforts to use student assessment data are very limited. They are most likely to use assessment data to modify assessment plans or processes and least likely to report wide-scale use of student assessment data in faculty promotion and reward decisions. For the most part, they have not attempted to monitor the internal or external impacts of their assessment efforts. This general pattern of results varies by institutional type. Overall, the picture of institutional support for student assessment that emerges from our data is an evolutionary one: considerable adoption of some types of student assessment measures, some institutional effort to support and promote assessment, and very little attention to actually using the information generated or to monitor its impacts.

12.2 The Study

The study was based on an institutional survey which required institutions to complete an inventory of their undergraduate student assessment activity. A comprehensive literature review and synthesis of the organizational and administrative factors related to student assessment was used to create a conceptual framework to guide the study (see Figure 1.2) and to identify specific survey items. The framework identified five environments of institutional support for student assessment: external influences; institutional approach to student assessment; organizational and administrative support for student assessment; institutional context; and the institutional use of student assessment information in decision making and its impact on the institution. The organizational and administrative support environment was comprised of the domains of institutional support strategy for assessment, assessment leadership and governance patterns, assessment management policies and practices, evaluation of the student assessment process, and assessment culture and climate. The latter domain was not included in this institutional survey but will be examined in the intensive case studies conducted in the next phase of this research project.

The population of all higher education institutions offering associate or baccalaureate degrees was surveyed. Slightly more than 55% responded in time to be included in the analysis. The responses by each of five institutional types (associate of arts, baccalaureate, master's, doctoral and research) were also high.

The analysis that followed examined descriptive patterns of response to all items (frequencies, means, and standard deviations) for all respondents and by institutional type and control. A descriptive profile of the results was reported in chapters three to seven of this report. Factor analysis, creation of summative indices, and identification of key item variables allowed us to reduce the number of variables used for multivariate analysis. Bivariate and regression analysis allowed us to examine the relationship of variables in the five environments and to examine the relative influence of external influences, institutional approach to student assessment, institution-wide support patterns and assessment management policies and practices on the institutional use and impacts of student assessment information. These multivariate analyses were reported in chapters nine to eleven.

12.3 Results

While the preceding chapters provide extensive and detailed descriptive results in each of the five survey environments and examine the relationships among them, the following summary highlights the key findings. The presentation of these findings is consistent with the eight research questions (see chapter one) which guided the study. The findings for research questions one through four and six through eight are presented for all responding institutions. The findings related to research question five highlight the results by institutional type and control across all five environments of the conceptual framework.

1. *What types of measures and approaches to student assessment have institutions adopted?*

- Institutions most often collect data on current students' academic progress, basic college-readiness skills, and academic intentions and least often collect information on higher-order skills, affective development, and former students' civic or social roles. Their approaches emphasize the use of entry measures and easily quantifiable indicators of student progress and give less attention to more complex measures of students' cognitive and affective domains. (Ch. 3)
- There is evidence that institutions are beginning to collect student assessment information at more than one point in time during students' involvement with the institution. (Ch. 3)
- When standardized instruments are used, they are more likely to have been developed by the institution itself rather than provided by state or commercial sources. (Ch. 3)

- Overall, institutions make limited use of less traditional student assessment methods such as portfolios, capstone projects, observations of student performance, and interviews or focus groups with current students, employers or alumni. (Ch. 3)
- Institutions do provide descriptive reports of student assessment information. Most often results are profiled on an institution-wide basis or disaggregated by academic program or department. However, few institutions conduct studies of the relationship between students' institutional experiences and student performance. (Ch. 3) This is an important finding in view of the relationship of assessment studies to institutional use and impacts of assessment information. (Ch. 11)

2. *What is the nature of external influences for student assessment in postsecondary institutions?*

State Role

- Institutions reporting the existence of a state plan for student assessment (half of respondents) most often perceive state requirements as having a positive influence on their assessment efforts. (Ch. 4)
- Institutions reporting the existence of a state plan for student assessment report they are more often required by state officials to provide evidence of a student assessment plan than use of student assessment results. Student performance indicators, if required, are more likely to be state-mandated than institutionally-devised. (Ch. 4)
- Half of institutions reporting the existence of a state plan for student assessment have had their assessment efforts reviewed, most often by state-level officials. Reviews have focused on the assessment process itself rather than on reports of student performance. (Ch. 4)

Accreditation Role

- Most institutions have undergone a regional accreditation review requiring student assessment. (Ch. 4)
- The majority perceive regional accreditation requirements as having had a positive influence on their assessment activities. (Ch. 4)

- Institutions report that regional accreditors most often require institutions to provide evidence of an assessment plan and least often require evidence of assessment results. Compared to state officials, regional accreditors more often require evidence of intended or actual institutional use of assessment information. (Ch. 4)

Other External Sources of Support for Assessment

- Few institutions have received grants from external sources to improve their student assessment practices (Ch. 4)
- The majority of institutions have used conferences, publications or research reports on student assessment provided by a variety of postsecondary organizations. Professional associations and regional accrediting associations are the major providers of these assessment support services. (Ch. 4)

3. What organizational and administrative support patterns for student assessment have institutions developed?

Institutional Support Strategy

- Most institutions' mission statements emphasize excellence in undergraduate education and many identify intended student outcomes, but few explicitly refer to the importance of student assessment. (Ch. 5)
- Institutions are predominantly engaged in undergraduate student assessment for internal purposes of improving undergraduate student achievement, undergraduate academic programs and faculty instructional practices. With the clear exception of preparing for accreditation self-study, accountability purposes (meeting state reporting requirements and guiding internal resource allocation decisions) are comparatively less important. (Ch. 5)

Leadership and Governance

- Institutions have instituted a variety of institution-wide administrative and governance structures and activities to support student assessment. Institutions are most likely to have faculty governance committees and assessment workshops for academic and student affairs administrators, and least likely to offer rewards or incentives for administrators promoting assessment in their units. (Ch. 5)

- The majority of institutions have some form of institutional plan or policy for student assessment. This is most often a formal centralized plan or policy in which specified assessment activities are required of all academic units or programs. To a lesser extent, institutions require all academic units or programs to develop their own undergraduate assessment plans or stipulate institution-wide activities to be conducted by a central assessment committee or office. (Ch. 5)
- Governance for student assessment is generally a shared responsibility in institutions, with primary responsibility positioned in academic affairs. The majority of institutions have an institution-wide student assessment planning group whose representation includes faculty and academic affairs administrators and, to a lesser extent, institutional research and student affairs personnel. (Ch. 5)
- Executive responsibility for student assessment planning is most often vested in academic affairs administrators, followed by a faculty member. (Ch. 5)
- Assessment plans and policies are usually subject to approval from multiple sources within the institution — particularly the chief academic affairs officer, followed by the chief executive officer and academic senate or other faculty committee. (Ch. 5)
- Operating responsibility for day-to-day student assessment activities is equally likely to be given to an academic affairs administrator or institutional research officer and, secondarily, to a faculty member. The individual with operational responsibility for student assessment most often reports directly to the chief academic officer followed by the chief executive officer. (Ch. 5)

Assessment Management Policies and Practices

- Almost half of institutions have explicit budget allocations to support student assessment activities but very few use student assessment information as a basis for allocating resources to academic units. (Ch. 6)
- Many institutions have information systems capable of tracking students over the course of their enrollment but few have computerized student assessment data bases, and even fewer have integrated their student assessment data with other institutional data bases. This would seem to necessarily limit the capability of institutions to conduct studies of the relationship between students' institutional experiences and performance. (Ch. 6)
- Institutions are more likely to provide access to assessment information on individual students to institutional researchers and academic administrators than to student affairs or faculty advisors. They more often distribute assessment reports to academic and student affairs administrators and faculty members than to external constituents. These patterns of assessment information access and distribution suggest this information is primarily intended to support internal administrative or policy-related decisions. (Ch. 6)
- Institutions have made fairly extensive use of policies that require student involvement in assessment activities and provide students with information concerning assessment purposes and results. (Ch. 6)
- Institutions have made less extensive use of professional development policies as a means of promoting student assessment. Professional development is primarily offered in the form of assessment conferences or workshops. These policies are more often directed toward faculty than to academic administrators and student affairs personnel. (Ch. 6)
- Institutions report encouraging their faculty to assess student learning. However, institutions are unlikely to use faculty evaluation and reward policies to promote faculty involvement in student assessment. (Ch. 6)

- Of all dimensions of assessment management policies and practices considered in this study, institutions made the most extensive use of policies incorporating assessment information into processes for academic planning and review, particularly with regard to academic programs, curriculum and courses. (Ch. 6)

Evaluation of Student Assessment Process

- Slightly more than one-quarter of institutions have conducted a formal evaluation of their student assessment process while slightly more than one-quarter have conducted an informal evaluation. (Ch. 5)

4. *How have institutions used student assessment information and what impacts has it had?*

- Most institutions have either not used assessment information to guide institutional decisions or are unaware of the influence of assessment data on institutional decisions. Assessment information is most likely to influence decisions concerning the assessment process itself, and academic planning at the program, curriculum and classroom levels. Assessment information is least likely to influence decisions concerning resource allocations to academic units, and faculty evaluation and rewards. (Ch. 7)
- Most institutions have not monitored the internal institutional impact of student assessment information. When they do, institutions most often report that student assessment information has led to changes in the teaching methods used by faculty and stimulated campus discussions of undergraduate education. Institutions have least often documented positive impacts of assessment information on faculty satisfaction and students' academic performance. (Ch. 7)
- Institutions are even less likely to monitor the impact of student assessment on external indicators of institutional performance. The clear exception to this pattern concerns relationships with regional accreditation associations. A large proportion of institutions report assessment information has had a positive impact on their evaluation from regional accreditors. (Ch. 7)

5. How do patterns of external influences, student assessment approach, organizational and administrative support, and uses and impacts of student assessment vary by institutional type and control?

Associate of Arts

External Influences

- Associate of arts are most likely of all institutional types to report the existence of a state plan or requirement for student assessment. Together with research institutions, they are most likely to perceive state requirements as a positive influence on their student assessment activities. State reporting requirements more often include providing evidence of a student assessment plan and use of state-mandated measures than using institutionally-devised performance indicators or providing evidence of using assessment information. Of all institutional types, they are most likely to have undergone some form of state review of their assessment plans or process. (Ch. 4)
- Most associate of arts institutions have undergone a regional accreditation review which required student assessment. More than state requirements, regional accreditation requirements are perceived as having positively influenced institutions' student assessment efforts. Institutions are more often required to provide accreditors with evidence of an assessment plan than institutional use of assessment information. (Ch. 4)
- Few associate of arts institutions have received grants from external sources to improve their student assessment practices. (Ch. 4)

Institutional Approach to Student Assessment

- Associate of arts institutions are most likely of all types of institutions to collect data on students' entry-level performance and vocational/professional skills and are least likely to collect data on students' cognitive and affective domains. (Ch. 3)
- If standardized instruments are used, these are more likely to have been developed by the institution than purchased commercially or provided by the state. Associate of arts institutions

make limited use of nontraditional student assessment methods. They are least likely of all institutional types to use student portfolios, capstone courses, or interviews or focus groups with current students and alumni. With the exception of distance education students, associate of arts institutions rarely use different student assessment methods for special student populations. (Ch. 3)

- With one exception (student exposure to different instructional methods) associate of arts are least likely of all institutional types to conduct studies of the relationship between students' institutional experiences and student performance. (Ch. 3)
- Reports of student assessment results are most often provided at the institution-wide or academic program/department level. (Ch. 3)
- These patterns of student assessment approach are reflective of associate of arts institutions' open-door admissions policies, vocational emphasis and very diverse, mobile student body.

Organizational and Administrative Support

- The mission statements of associate of arts institutions typically emphasize excellence in undergraduate education and, to a lesser extent, identify intended educational outcomes but less often explicitly refer to student assessment as an important institutional activity. (Ch. 5)
- Associate of arts institutions view student assessment as very important to meeting a number of purposes including reporting to state officials and regional accreditors, improving student and faculty performance, and guiding internal resource allocation. (Ch. 5)
- Associate of arts institutions most often use institution-wide initiatives and assessment workshops for administrators as means of promoting student assessment, but rarely use incentives for administrators or academic units for this purpose. (Ch. 5)
- While all internal constituents are reported as being supportive of student assessment, administrators are perceived as being most supportive and faculty and students as comparatively less supportive. (Ch. 5)

- Associate of arts institutions are most likely to use a formal centralized plan or policy for student assessment which requires specified assessment activities for all academic units or programs. Of all institutional types, they are least likely to use a formal decentralized plan or policy in which academic units or programs develop their own student assessment plans. (Ch. 5)
- The majority of associate of arts institutions have an institution-wide student assessment planning group. Group representation most often includes faculty and academic affairs personnel. Associate of arts are more likely than other types of institutions to have the chief executive officer, and student affairs and institutional research personnel on this committee. Executive responsibility for this group is most often placed with an academic affairs administrator. Similarly, approval authority for student assessment plans or policies is most often vested in the chief academic affairs officer. Associate of arts institutions are more likely than other types of institutions to include the chief executive officer in the approval process and less likely to include the academic senate. Oversight of day-to-day assessment activities is most often the responsibility of an institutional research officer or academic affairs administrator. Overall, governance for student assessment is more often an administrative than a faculty responsibility. (Ch. 5)
- Close to half of associate of arts institutions have an office providing faculty consultation on using student assessment. (Ch. 5)
- About half of associate of arts institutions have formally or informally evaluated their student assessment process. Evaluation has most often considered assessment plans or policies, the achievement of student assessment objectives, use of assessment information in decision-making, and problems encountered in the assessment process. (Ch. 5)

Assessment Management Policies and Practices

- Almost half of associate of arts institutions have an explicit budget allocation to support student assessment. One-quarter informally consider assessment information when allocating resources to academic units, but very few have formally linked academic resource allocation to assessment results. (Ch. 6)

- Many associate of arts institutions have scheduled student assessment activities into the academic calendar. Of all institutional types, these institutions report the most comprehensive and sophisticated information systems to support student assessment. (Ch. 6)
- Compared to other types of institutions, associate of arts institutions provide the greatest internal access to individual student assessment information. Student assessment reports are more often distributed to internal than external constituencies. (Ch. 6)
- Associate of arts institutions make moderately extensive use of policies promoting student involvement in assessment activities. (Ch. 6)
- Compared to other types of institutions, associate of arts institutions make the most extensive use of professional development policies related to student assessment. Policies are more often directed toward faculty than to academic administrators or student affairs personnel. (Ch. 6)
- Associate of arts institutions encourage faculty to assess student learning. Beyond this, they make little use of faculty evaluation and reward policies to promote student assessment. (Ch. 6)
- Of all types of institutions, associate of arts institutions make the most extensive use of student assessment information in academic planning and review processes for academic departments/programs, curriculum, courses, and academic support services. (Ch. 6)

Assessment Uses and Impacts

- Student assessment data has influenced decisions concerning student assessment plans or processes, academic support services, teaching methods, general education curriculum and academic programs in some associate of arts institutions. However, the majority of institutions either do not use or are unaware of the influence of assessment information on institutional decision making. (Ch. 7)
- Most associate of arts institutions have not monitored the internal impacts of student assessment information. Among those institutions where monitoring has occurred, the most

frequently documented impacts are changes in teaching methods, and increases in student retention or graduation rates, and campus discussions of undergraduate education. (Ch. 7)

- Many associate of arts institutions report that assessment information has had a positive impact on regional accreditation evaluations. With this one exception, most institutions have not monitored the impacts of student assessment information on external measures of institutional performance. (Ch. 7)

Baccalaureate Institutions

External Influences

- Baccalaureate institutions are least likely of all types of institutions to report the existence of a state plan or requirement for student assessment. They are least likely to perceive positive influences of state requirements on their assessment efforts. Compared to other institutional types, a higher proportion of baccalaureates report they are required to provide evidence of a student assessment plan and institutional use of student assessment information to state officials. (Ch. 4)
- The majority of baccalaureate institutions have undergone a regional accreditation review which required student assessment. Compared to state assessment requirements, accreditation requirements are more often perceived as having positively influenced these institutions' assessment efforts. Institutions are more often required to provide accreditors with evidence of an assessment plan than institutional use of assessment information. (Ch. 4)
- Among institutional types, baccalaureate institutions are most likely to have received external grants to improve their student assessment practices from private or corporate sources, and least likely to have received grants from state sources. Still, the majority of baccalaureates have not received external grants. (Ch. 4)

Institutional Approach to Student Assessment

- Baccalaureate institutions are most likely of all institutional types to collect data on students' cognitive domains (e.g., higher-order cognitive skills, general education, competence in major field), students' experiences and satisfaction with the institution, and former students' further education and civic/social roles. (Ch. 3)

- Baccalaureate institutions more often use instruments that have been institutionally or commercially developed than state provided. Compared to other institutional types, they make greater use of nontraditional student assessment methods such as observations of student performance, student portfolios, capstone courses, transcript analysis and surveys/interviews with withdrawing students. A small proportion of baccalaureate institutions report using different student assessment methods for adult and distance education students. (Ch. 3)
- Few baccalaureate institutions report conducting studies of the relationship between students' institutional experiences (e.g., exposure to different instructional methods, patterns of student-faculty interaction) and student performance. (Ch. 3)
- Baccalaureate institutions most often provide reports of student assessment results at the institution-wide or academic program/department level. (Ch. 3)
- These patterns of student assessment approach — particularly the types of assessment data collected and use of nontraditional assessment methods — are reflective of baccalaureate institutions' emphasis on student development.

Organizational and Administrative Support

- Mission statements of baccalaureate institutions usually emphasize excellence in undergraduate education and, more often than other institutional types, identify intended educational outcomes for students, but seldom make explicit reference to student assessment. (Ch. 5)
- Baccalaureate institutions identify preparing for regional accreditation the most important purpose of student assessment, and give higher importance ratings to improving student achievement and faculty instructional performance than other institutional types. They view meeting state requirements as a comparatively unimportant purpose of assessment. (Ch. 5)

- Baccalaureate institutions most often focus on faculty and academic and student affairs administrators in their use of administrative and governance activities to promote student assessment. (Ch. 5)
- While all internal constituents are reported as being supportive of student assessment, administrators are perceived as being most supportive and faculty and students as comparatively less supportive. (Ch. 5)
- Baccalaureate institutions are most likely of all institutional types to have a formal centralized plan or policy for student assessment. However, they also report using a formal decentralized or formal guidance policy approach. (Ch. 5)
- The majority of baccalaureate institutions have an institution-wide planning group for student assessment. Group membership most often includes faculty and academic affairs personnel. Compared to other types of institutions, baccalaureate institutions least often include student affairs or research-oriented personnel in this group. Executive responsibility for this group is most often placed with an academic affairs administrator. Approval authority for student assessment plans or policies is usually vested in the chief academic affairs officer, followed by the academic senate. Day-to-day oversight of assessment activities most often rests with an academic affairs administrator or institutional research officer, followed by a faculty member. While academic affairs administrators figure prominently in decision making processes, governance for student assessment includes a significant degree of faculty participation. (Ch. 5)
- Baccalaureate institutions are least likely of all institutional types to have an office providing faculty consultation on using student assessment. (Ch. 5)
- Slightly more than half of baccalaureate institutions have formally or informally evaluated their student assessment process. Compared to other types of institutions, baccalaureates have conducted the most comprehensive evaluations, reviewing the largest number of elements of the assessment process. (Ch. 5)

Assessment Management Policies and Practices

- Approximately half of baccalaureate institutions have an explicit budget allocation for student assessment. They are least likely of all institutional types to informally consider assessment information when allocating resources to academic units, and almost none have formally linked academic resource allocation to assessment results. (Ch. 6)
- Of all institutional types, baccalaureates are most likely to have scheduled student assessment activities into the academic calendar. Comparatively few have student assessment information systems that are computerized or integrated with other institutional data bases. (Ch. 6)
- Baccalaureate institutions provide internal constituencies with moderately high access to individual student assessment information. Assessment reports are regularly distributed to administrators and faculty, but less often to students and least of all to external constituencies. (Ch. 6)
- Of all institutional types, baccalaureate institutions make the most extensive use of policies promoting student involvement in assessment activities. (Ch. 6)
- Baccalaureate institutions make fairly extensive use of professional development policies related to student assessment. Policies are more likely to be directed toward faculty than to academic administrators or student affairs personnel. (Ch. 6)
- Compared to other types of institutions, baccalaureate institutions make the most extensive use of policies linking student assessment with faculty evaluation and reward policies and practices. This most often takes the form of encouraging faculty to assess students, and considering faculty assessment-related scholarship and participation in promotion, tenure or salary decisions. Even so, use of these policies is generally limited to only a few or some departments. (Ch. 6)
- Next to associate of arts institutions, baccalaureate institutions make the most extensive use of student assessment information in academic planning and review processes for academic departments/programs, curriculum, courses, and academic support services. (Ch. 6)

Assessment Uses and Impacts

- Student assessment data has had some influence on decisions to revise academic programs, general education curriculum, academic support services, teaching methods, and the academic mission. Although baccalaureate institutions reported the most use of assessment information among all institutional types, many of these institutions either do not use or are unaware of the influence of assessment information on institutional decision making. (Ch. 7)
- Most baccalaureate institutions have not monitored the internal impacts of student assessment information. Among those institutions where monitoring has occurred, the most frequently documented impacts are changes in teaching methods, and increases in student retention or graduation rates, and campus discussions of undergraduate education. (Ch. 7)
- Many baccalaureate institutions report that assessment information has had a positive impact on regional accreditation evaluations. Save for this exception, most institutions have not monitored the impacts of student assessment information on external measures of institutional performance. (Ch. 7)

Master's Institutions

External Influences

- Roughly half of master's institutions report the existence of a state plan or requirement for student assessment. Of these, approximately half perceive state requirements as having increased institutional involvement in student assessment. State reporting requirements more often include providing evidence of a student assessment plan and use of state-mandated measures than use of institutionally-devised performance indicators or institutional use of assessment information. (Ch. 4)
- Most master's institutions have undergone a regional accreditation review which required student assessment. Regional accreditation requirements are more often perceived as a positive influence on institutions' assessment efforts than state requirements. Institutions are more

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often required to provide accreditors with evidence of an assessment plan than institutional use of assessment information. (Ch. 4)

- The majority of master's institutions have not received external grants to improve their student assessment practices. (Ch. 4)

Institutional Approach to Student Assessment

- Master's institutions are most likely to collect information on current students' academic progress, basic skills and satisfaction with the institution, and least likely to collect information concerning students' vocational/professional skills, affective development or civic/social roles. Compared to other types of institutions, these institutions fall in the midrange of use of various approaches to student assessment. (Ch. 3)
- If standardized instruments are used by master's institutions, these are more likely to be institutionally-developed or commercially purchased than provided by the state. Compared to other types of institutions, they make moderate use of nontraditional student assessment methods. A small proportion of master's institutions report using different student assessment methods for adult and distance education students. (Ch. 3)
- Master's institutions report limited attempts to study the relationship between various aspects of students' institutional experiences and students' performance. (Ch. 3)
- Reports of student assessment results are most often provided at the level of the whole institution or academic programs/departments. (Ch. 3)
- Overall, master's institutions tend to fall in the middle range of extensiveness of undergraduate student assessment approach. This may be reflective of their need to address both undergraduate and graduate education concerns.

Organizational and Administrative Support

- Most master's institutions emphasize excellence in undergraduate education in their institutional missions and many identify intended educational outcomes for students, but few explicitly refer to student assessment. (Ch. 5)

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- Master's institutions are most likely to view student assessment as meeting academic improvement (student and faculty performance) purposes rather than management or external accountability purposes. (Ch. 5)
- Like baccalaureate institutions, master's institutions most often target faculty and academic and student affairs administrators in institutional activities promoting student assessment. They are most likely of all institutional types to provide student representation on assessment committees. (Ch. 5)
- While all internal constituents are reported as being supportive of student assessment, administrators are perceived as being most supportive and faculty and students as comparatively less supportive. (Ch. 5)
- Master's institutions are most likely to adopt a formal decentralized plan or policy for student assessment in which academic units or programs develop their own assessment plan. Slightly fewer report using a formal centralized or formal guidance policy. (Ch. 5)
- Most master's institutions have an institution-wide planning group for student assessment. Group representation most often includes faculty and academic affairs personnel and least often includes the chief executive officer. Executive responsibility for this group is most often placed with an academic affairs administrator or faculty member. Approval authority for student assessment plans or policies most often rests with the chief academic officer followed by the academic senate. Oversight of day-to-day assessment activities is generally the responsibility of an institutional research officer or academic affairs administrator, although faculty members also often hold this position. Overall, master's institutions share governance responsibility for student assessment across administrative and faculty positions. (Ch. 5)
- Approximately half of master's institutions have an office providing faculty consultation on using student assessment. (Ch. 5)
- Approximately half of master's institutions have evaluated their student assessment process, more often informally than formally. Evaluation has most often included a review of

assessment plans and policies, achievement of intended objectives of assessment, and problems encountered in the assessment process. (Ch. 5)

Assessment Management Policies and Practices

- Approximately half of master's institutions have an explicit budget allocation to support student assessment. One-quarter informally consider assessment information when allocating resources to academic units, but very few have formally linked academic resource allocation to assessment results. (Ch. 6)
- Approximately half of master's institutions have formally incorporated assessment activities into the academic calendar. Most do not have a student assessment information system that is computerized or integrated with other institutional data bases. (Ch. 6)
- Master's institutions provide internal constituencies with moderately high access to individual student assessment information. Assessment reports are regularly distributed to administrators and faculty, but less often to students and least of all to external constituencies. (Ch. 6)
- Master's institutions make moderately extensive use of policies promoting student involvement in assessment activities. (Ch. 6)
- Master's institutions make fairly extensive use of professional development policies related to student assessment. Policies are more likely to be directed toward faculty or academic administrators than to student affairs personnel. (Ch. 6)
- Master's institutions encourage their faculty to assess students, and some departments consider faculty assessment-related scholarship and participation in promotion, tenure or salary decisions. There is scant use of other policies linking student assessment with faculty evaluation and rewards. (Ch. 6)
- Master's institutions make extensive use of student assessment information in academic planning and review processes for academic departments/programs, curriculum, and courses. (Ch. 6)

Assessment Uses and Impacts

- Student assessment data has had some influence on decisions to revise academic programs, student assessment plans or processes, academic support services, teaching methods, and the academic mission in master's institutions. Still, many of these institutions either do not use or are unaware of the influence of assessment information on institutional decision making. (Ch. 7)
- Most master's institutions have not monitored the internal impacts of student assessment information. Among those institutions where monitoring has occurred, the most frequently documented impacts are changes in teaching methods, and increases in student retention or graduation rates, and campus discussions of undergraduate education. (Ch. 7)
- Many master's institutions report that assessment information has had a positive impact on regional accreditation evaluations. Save for this exception, most institutions have not monitored the impacts of student assessment information on external measures of institutional performance. (Ch. 7)

Doctoral Institutions

External Influences

- Roughly half of doctoral institutions report the existence of a state plan or requirement for student assessment. Approximately half of these perceive state requirements as having increased institutional involvement in student assessment. Doctoral institutions are more likely to be required to provide state officials with evidence of a student assessment plan than institutional use of student assessment information. Of all institutional types, they are most likely to report being required to use state-mandated student performance indicators. (Ch. 4)
- Most doctoral institutions have undergone a regional accreditation review which required student assessment. More than state requirements, regional accreditors' requirements for student assessment are more often perceived as having had a positive influence on these

institutions' assessment efforts. Institutions are more often required to provide accreditors with evidence of an assessment plan than institutional use of assessment information. (Ch. 4)

- The majority of doctoral institutions have not received external grants to improve their student assessment practices. (Ch. 4)

Institutional Approach to Student Assessment

- Doctoral institutions most often collect data on current students' academic progress, basic college-readiness skills and academic intentions and least often collect information on students' higher-order cognitive skills, civic or social roles, and vocational/professional skills. Along with master's institutions, doctoral institutions tend to fall in the midrange of use of various approaches to student assessment. (Ch. 3)
- Doctoral institutions are more likely to use instruments that have been developed by the institution itself or commercial sources than state-provided instruments. Compared to other types of institutions, they make moderate use of nontraditional student assessment methods. With the exception of distance education students, doctoral institutions do not use different student assessment methods for special student populations. (Ch. 3)
- Compared to other types of institutions, a moderate proportion of doctoral institutions conduct studies of the relationship between various aspects of students' institutional experiences and student performance. (Ch. 3)
- Doctoral institutions most often provide reports of student assessment results at the institution-wide, academic program/department, and school/college levels. (Ch. 3)
- Doctoral institutions tend to fall in the midrange of extensiveness of undergraduate student assessment approach. This may be attributable to their dual focus on undergraduate and graduate education.

Organizational and Administrative Support

- Most doctoral institutions emphasize excellence in undergraduate education in their institutional missions and, to a lesser extent, identify intended educational outcomes for students but fewer explicitly refer to student assessment. (Ch. 5)
- Doctoral institutions view preparing for regional accreditation, improving student achievement and academic programs as important purposes of student assessment but give meeting state requirements, improving faculty instruction and guiding internal resource allocation lower importance ratings. (Ch. 5)
- Doctoral institutions most often focus administrative and governance activities promoting student assessment toward faculty and academic and student affairs administrators. They are more likely than other types of institutions to use incentives to encourage administrators and academic units to use assessment information. (Ch. 5)
- Like other types of institutions, doctoral institutions report all internal constituents as being supportive of student assessment, but administrators are perceived as being most supportive and faculty and students as comparatively less supportive. (Ch. 5)
- Like master's institutions, doctoral institutions are most likely to have a formal decentralized student assessment policy in which academic units or programs determine their own assessment plans. A somewhat smaller proportion use a formal guidance or formal centralized plan. (Ch. 5)
- A large proportion of doctoral institutions have an institution-wide planning group for student assessment. This group is most often comprised of faculty members and academic affairs personnel. Compared to other types of institutions, doctoral institutions are least likely to have the chief executive officer as a group member and most likely to include student representatives. Executive responsibility for this group is equally likely to be given to an academic affairs administrator or faculty member. Approval authority for student assessment plans or policies is most often vested in the chief academic affairs officer and less often

includes the academic senate. Day-to-day oversight of assessment activities is primarily the responsibility of an academic affairs administrator, followed by institutional research officers and faculty members. Overall, doctoral institutions employ a broad range of internal representation in student assessment governance. (Ch. 5)

- Half of doctoral institutions have an office providing faculty consultation on using student assessment. (Ch. 5)
- Approximately half of doctoral institutions have evaluated their student assessment process, more often informally than formally. Evaluation has most often reviewed assessment plans and policies, problems encountered in the assessment process, assessment structure and governance, and achievement of intended objectives of assessment. (Ch. 5)

Assessment Management Policies and Practices

- Almost half of doctoral institutions have an explicit budget allocation for student assessment. Some informally consider assessment information when allocating resources to academic units, but very few have formally linked academic resource allocation to assessment results. (Ch. 6)
- Approximately half of doctoral institutions have scheduled student assessment activities into the academic calendar. Most do not have a student assessment information system that is computerized or integrated with other institutional data bases. (Ch. 6)
- Compared to other types of institutions, doctoral institutions provide internal constituencies with slightly less access to individual student assessment information. Assessment reports are regularly distributed to administrators and faculty, but less often to students and least of all to external constituencies. (Ch. 6)
- Doctoral institutions make fairly extensive use of policies promoting student involvement in assessment activities. (Ch. 6)
- Doctoral institutions make moderate use of professional development policies related to student assessment. Policies are more likely to encourage rather than require participation in

professional development, and are more often directed toward faculty than to academic administrators or student affairs personnel. (Ch. 6)

- Doctoral institutions encourage their faculty to assess students, and give some consideration to assessment-related scholarship in faculty promotion, tenure or salary decisions. They make scant use of other policies linking student assessment with faculty evaluation and rewards. (Ch. 6)
- Doctoral institutions make fairly extensive use of student assessment information in academic planning and review processes for academic departments/programs, curriculum, and courses. (Ch. 6)

Assessment Uses and Impacts

- Student assessment data has had some influence on decisions to revise student assessment plans or processes, academic support services, teaching methods, academic programs, and the general education curriculum in doctoral institutions. But the majority of these institutions either do not use or are unaware of the influence of assessment information on institutional decision making. (Ch. 7)
- The majority of doctoral institutions have not monitored the internal impacts of student assessment information. Among those institutions where monitoring has occurred, the most frequently documented impacts are changes in teaching methods, and increases in student retention or graduation rates and campus discussions of undergraduate education. (Ch. 7)
- Many doctoral institutions report that assessment information has had a positive impact on regional accreditation evaluations. Save for this exception, most institutions have not monitored the impacts of student assessment information on external measures of institutional performance. (Ch. 7)

Research Institutions

External Influences

- Roughly half of research institutions report the existence of a state plan or requirements for student assessment. Together with associate of arts institutions, they are most likely to perceive state assessment requirements as a positive influence on their student assessment activities. Like other types of institutions, research institutions are more likely to be required to provide state officials with evidence of a student assessment plan than of institutional use of assessment information. They are most likely to be required to report on institutionally-devised student performance indicators. (Ch. 4)
- The majority of research institutions have undergone a regional accreditation review which required student assessment. Compared to other types of institutions, these institutions appear to be less affected by accreditation requirements for student assessment. They are significantly less likely to perceive positive influences on their assessment activities attributable to regional accreditation requirements and perceive fewer reporting requirements stemming from regional accreditors. (Ch. 4)
- Of all institutional types, research institutions are most likely to have received a grant from some external source to improve their student assessment practices. Still, almost three-quarters of research institutions have received no external grants for this purpose. (Ch. 4)

Institutional Approach to Student Assessment

- Research institutions report a mix of data collection efforts compared to other types of institutions, scoring lowest on six and highest on three of the fourteen assessment measures considered in our study. They are most likely to collect data on current students' academic progress, academic intentions and basic college-readiness skills, and least likely to collect data on students' vocational/professional skills, civic/social roles and higher-order cognitive skills. (Ch. 3)

- Research institutions are more likely to use institutionally-developed instruments than those provided by the state or commercial sources. Like associate of arts institutions, they make limited use of nontraditional student assessment methods. Compared to other types of institutions, they are least likely to use observations of student performance, transcript analysis, and external examinations of students. With the exception of distance education students, research institutions make limited use of different student assessment methods for special student populations. (Ch. 3)
- Overall, research institutions are most likely of all institutional types to conduct studies of the relationship between students' institutional experiences and student performance. This may reflect the capacity of institutional research offices at these institutions. (Ch. 3)
- Research institutions are most likely to provide reports of student assessment results at the levels of schools/colleges or the institution as a whole. (Ch. 3)
- With the exception of conducting student assessment studies, research institutions generally report less extensive undergraduate student assessment approaches than other types of institutions. These patterns of student assessment approach are likely attributable to their emphasis on graduate as opposed to undergraduate education. (Ch. 3)

Organizational and Administrative Support

- The institutional missions of most research institutions emphasize excellence in undergraduate education, but compared to other institutional types, they are least likely to identify intended educational outcomes for students or explicitly refer to student assessment. (Ch. 5)
- Research institutions view improving academic programs and student achievement as very important purposes of their student assessment efforts but generally ascribe less importance to student assessment purposes than other types of institutions. (Ch. 5)
- Compared to other types of institutions, research institutions make the highest use of assessment workshops and rewards or incentives for administrators as a means of promoting student assessment. (Ch. 5)

- Compared to other types of institutions, research institutions report somewhat lower levels of support for student assessment among various groups of internal constituents. Similar to other institutions, administrators are perceived as being most supportive and faculty and students as comparatively less supportive of student assessment. (Ch. 5)
- Research institutions are more likely than other institutional types to have an informal or no undergraduate student assessment plan or policy in place. Those institutions with plans are most likely to decentralize decisions concerning student assessment to academic units or programs. (Ch. 5)
- Less than half of research institutions have an institution-wide planning group for student assessment, the smallest proportion of all institutional types. These institutions are most likely of all types to include personnel with specialized assessment or institutional research expertise in a planning group and least likely to have faculty representation. Executive responsibility for this group is most often vested in an academic affairs administrator and, compared to other institutional types, least often placed with a faculty member. Approval authority for student assessment plans or policies usually rests with the chief academic affairs officer and, compared to other institutional types, less often includes the academic senate. Oversight for day-to-day assessment activities is usually the responsibility of an institutional research officer or academic affairs administrator; compared to other institutional types, research institutions are least likely to assign this responsibility to a faculty member. Overall, governance patterns for student assessment primarily emphasize administrative and, to a lesser extent, specialized research involvement while faculty members have comparatively less involvement. (Ch. 5)
- Almost two-thirds of research institutions have an office providing faculty consultation on using student assessment, the highest proportion among all types of institutions. (Ch. 5)
- Of all institutional types, research institutions are least likely to have formally or informally evaluated their assessment process, and most likely not to be planning such an evaluation. When conducted, evaluations most often review assessment plans and policies, the use of

assessment information in decision-making, and problems encountered in the assessment process. (Ch. 5)

Assessment Management Policies and Practices

- Only one-third of research institutions have an explicit budget allocation for student assessment, the smallest proportion of any institutional type. Some informally consider assessment information when allocating resources to academic units, but very few have formally linked academic resource allocation to assessment results. (Ch. 6)
- Of all institutional types, research institutions are least likely to have scheduled student assessment activities into the academic calendar. A moderately high proportion have computerized student assessment information systems. (Ch. 6)
- Compared to other types of institutions, research institutions provide internal constituencies slightly less access to individual student assessment information. Assessment reports are regularly distributed to administrators, less often to faculty or students, and least of all to external constituencies. (Ch. 6)
- Of all institutional types, research institutions make the least extensive use of policies promoting student involvement in assessment activities. (Ch. 6)
- Compared to other types of institutions, research institutions make the least extensive use of professional development policies related to student assessment. Policies are more likely to encourage rather than require participation in professional development. (Ch. 6)
- Research institutions encourage their faculty to assess student learning. Of all institutional types, they make the least extensive use of policies linking student assessment with faculty evaluation and rewards. (Ch. 6)
- Research institutions make moderately extensive use of student assessment information in academic planning and review processes for academic departments/programs and core curriculum. Of all types of institutions, they are least likely to incorporate assessment information into academic planning and review processes. (Ch. 6)

Assessment Uses and Impacts

- Student assessment data has had some influence on decisions to revise academic support services, academic programs, teaching methods, student assessment plans or processes, and general education curriculum in research institutions. But even more than other institutional types, research institutions either do not use or are unaware of the influence of assessment information on institutional decision making. (Ch. 7)
- Of all institutional types, research institutions are least likely to monitor the internal impacts of student assessment information. Among those institutions where monitoring has occurred, the most frequently documented impacts are changes in teaching methods, and increases in student retention or graduation rates and campus discussions of undergraduate education. (Ch. 7)
- Research institutions report that assessment information has had a positive impact on regional accreditation evaluations. Save for this exception, most institutions have not monitored the impacts of student assessment information on external measures of institutional performance. (Ch. 7)

Institutional Control (Public and Private)

External Influences

- The existence and influence of state assessment plans is largely restricted to public institutions. This accounts for the differences in perceived external influences reported by baccalaureate (largely private) and associate of arts (largely public) institutions. (Ch. 4)
- Although the majority of institutions associate regional accreditation requirements with positive influences on their assessment activities, private institutions are more likely to do so than public institutions. (Ch. 4)
- Public institutions are more likely than private to have received external grants to improve their student assessment practices from state programs and federal agencies other than FIPSE, while private institutions are more likely than public to have received such grants from private foundations or corporate sources. (Ch. 4)

Institutional Approach to Student Assessment

- Compared to public institutions, private institutions collect more extensive student assessment data, make more extensive use of nontraditional student assessment methods, are more likely to use different assessment methods for special student populations, and more often conduct studies of the relationships of students' institutional experiences to student performance. (Ch. 3)
- Public institutions are more likely than private to provide reports of student assessment information at the institution-wide and course level, and for special student subpopulations. (Ch. 3) This difference may be due to the greater pressure for accountability from state officials experienced by public institutions.

Organizational and Administrative Support

- Compared to public institutions, private institutions are more likely to emphasize excellence in undergraduate education and identify intended educational outcomes for students, but public institutions are more likely to explicitly refer to student assessment as an important institutional activity. (Ch. 5)
- Private institutions emphasize internal improvement purposes of student assessment more than public institutions. Public institutions are more likely than private to view meeting state requirements as an important purpose of assessment. (Ch. 5)
- Private institutions report greater faculty support for student assessment than public institutions. (Ch. 5)
- Private institutions are more likely than public to have a formal decentralized plan or policy for student assessment and to be currently developing their student assessment plan or policy. (Ch. 5)
- Public and private institutions are equally likely to have an institution-wide planning group for student assessment. Public institutions are more likely than private to have student affairs, institutional research and student assessment personnel represented on this group, and to place

executive responsibility for this group with a student affairs administrator. Public institutions are more likely than private to vest approval authority for assessment plans or policies in administrative positions other than the chief academic officer and less likely to involve the academic senate. Responsibility for planning and directing ongoing assessment activities is more often vested in research expertise positions in public institutions while private institutions are more likely to give this responsibility to an academic administrator or faculty member. (Ch. 5)

- Public institutions are more likely than private to have an office providing faculty consultation on using student assessment. (Ch. 5)
- Public institutions are slightly more likely than private to have evaluated their student assessment process while private institutions are slightly more likely to be developing plans for such an evaluation. (Ch. 5)

Assessment Management Policies and Practices

- Public institutions are more likely than private institutions to informally consider student assessment results in determining resource allocations for academic units. (Ch. 6)
- Private institutions are more likely than public to have scheduled student assessment activities into the academic calendars. Public institutions are more likely than private to have a computerized information system for student assessment. (Ch. 6)
- Public institutions are more likely than private to provide institutional researchers and student affairs professionals with access to assessment information on individual students, and to distribute student assessment reports to student affairs professionals, employers and the general public. (Ch. 6)
- Compared to public institutions, private institutions make slightly more extensive use of policies requiring students to participate in assessment activities and providing incentives to encourage student participation. (Ch. 6)

- Public institutions are more likely than private to have professional development policies related to student assessment. (Ch. 6)
- Private institutions make slightly more extensive use of policies linking student assessment with faculty evaluation and rewards than public institutions. (Ch. 6)
- Public and private institutions do not differ significantly in their incorporation of student assessment information into processes for academic planning and review. (Ch. 6)

Assessment Uses and Impacts

- There are few differences between public and private institutions in their use of assessment information in institutional decision making, and monitoring of impacts of assessment information. (Ch. 7)

6. *How are external influences related to the institutional adoption of various approaches to student assessment, patterns of organizational and administrative support for assessment, and uses and impacts of student assessment information?*

Relationship to Institutional Approach to Assessment

State Influences

- There are significant differences in the form of student assessment initiative and standardization of reporting requirements associated with the authority of the state governance structure for higher education. (Ch. 9)
- Differences in state approaches to assessment are associated with differences in institutions' approaches to assessment. Of three dimensions of state assessment approaches considered — governance structure, form of assessment initiative, and use of common indicators/outcomes — governance structure for higher education is most often associated with differences in institutions' assessment approaches. (Ch. 9)
- Institutions in states using coordinating regulatory boards collect the most extensive assessment data while those in states with coordinating advisory boards collect the least. There are fewer

differences in institutions' patterns of data collection by form of state assessment initiative and state reporting requirements for assessment. (Ch. 9)

- Institutions in states with coordinating advisory boards for higher education use a smaller number of student assessment data collection methods while institutions in states with planning agencies use the greatest variety of data collection methods. Institutions in states with assessment statutes are less likely to use student-centered assessment methods (e.g., portfolios, capstone courses). (Ch. 9)
- There is little relationship between state assessment approaches and the assessment studies and reports produced by institutions. This aspect of institutions' student assessment approach is largely unrelated to state influences. (Ch. 9)

Accreditation Influences

- There are statistically significant differences in institutions' approaches to student assessment by accreditation region. Institutions in the Middle States, Southern and North Central accrediting regions have the most extensive data collection efforts. Institutions in the Southern and North Central regions make greatest use of a variety of data collection methods. Institutions in the Western accrediting region collect the least extensive assessment data and make the least extensive use of various data collection methods. (Ch. 9)

Relationship to Organizational and Administrative Support for Assessment

State Influences

- Variations in the extent of organizational and administrative support for assessment are more often associated with differences in state governance structures than with differences in the form of state assessment initiatives or state reporting requirements for assessment. (Ch. 9)
- There is a positive association between the authority of the state governance structure for higher education and the strength or extent of institutions' assessment support strategies. Institutions in states with coordinating regulatory and consolidated governing boards generally score higher

on support strategy dimensions than institutions from states with planning agencies and coordinating advisory boards for higher education. (Ch. 9)

- Institutions are most likely to report that meeting state requirements is an important purpose of their student assessment efforts if they are in states with coordinating regulatory or consolidated governing boards, the state assessment initiative is in the form of a statute, and institutions are required to report institutionally-devised indicators or outcomes. (Ch. 9)
- The authority of the state governance structure for higher education is positively associated with administrative and faculty support for assessment. (Ch. 9)
- The authority of the state governance structure for higher education is positively associated with institutions' use of formal centralized plans or policies for student assessment. (Ch. 9)
- In general, institutions in states with planning agencies for higher education make the most extensive use of assessment management policies and practices to support their student assessment efforts while those in states with coordinating advisory boards make the least extensive use. (Ch. 9)
- Institutions permitted to report institutionally-specific student indicators and outcomes make greater use of professional development policies than institutions required to report common indicators/outcomes. (Ch. 9)

Accreditation Influences

- In general, institutions in the Southern accrediting region report the highest scores on institutional support strategy dimensions while institutions in the Western accrediting region report the lowest. (Ch. 9)
- Institutions in the Southern accrediting region report the most extensive use of assessment management policies and practices. Patterns of using assessment management policies and practices vary considerably among institutions in the other accrediting regions, but institutions in the Western region have the lowest use scores overall. (Ch. 9)

Relationship to Institutional Uses and Impacts of Assessment

State Influences

- There is little association between state assessment approaches and institutional uses and impacts of assessment information. There are positive relationships between institutions' documentation of positive external impacts from assessment and two dimensions of state approach — the authority of the state governance structure for higher education, and the use of statutes. (Ch. 9)

Accreditation Influences

There are small but significant associations between regional accrediting affiliation and institutional uses and impacts of assessment information. Institutions in the Southern region report the greatest influence of assessment information on academic and faculty decisions, and have documented the most positive student and external impacts. Compared to institutions in other accrediting regions, those in the New England region report the lowest use and impacts from assessment. (Ch. 9)

7. How are institutional approaches to and organizational and administrative support patterns for student assessment related to uses and impacts of student assessment information?

- The extensiveness of institutions' data collection efforts, particularly the extent to which they collect data on students' cognitive domains, is strongly associated with student assessment uses and impacts. (Ch. 10)
- Conducting assessment for internal purposes and the degree of administrative and faculty support for assessment are strongly associated with using assessment information for academic decisions. (Ch. 10)
- Providing professional development on assessment for academic administrators, faculty, and student affairs personnel, and incorporating assessment information into processes for academic planning and review are strongly associated with using assessment information for academic decisions. (Ch. 10)

- Linking student assessment with faculty evaluation criteria is strongly associated with using assessment information for faculty decisions. (Ch. 10)
- Incorporating assessment information into processes for academic planning and review is strongly associated with achieving faculty, student and external impacts from assessment information. (Ch. 10)

8. *What is the relative influence of external groups, institutional approach to assessment, and patterns of organizational and administrative support for assessment on institutional uses and impacts of student assessment information? How does this influence vary by institutional type?*

Overall Influence

- Overall, the domains of assessment management policies and practices, institutional support strategy for assessment, and student assessment approach are stronger predictors of assessment uses and impacts than the domains of institutional characteristics and external influences. This suggests that institutions can enhance the likelihood of using and achieving positive impacts from their student assessment efforts irrespective of their broad characteristics or external context. (Ch. 11)
- Two specific institutional practices and policies appear as the most important determinants of assessment uses and impacts: incorporating assessment information into academic planning and review processes and the number of assessment studies conducted. These indexes reflect the extent to which institutions build formal linkages between their student assessment efforts and process for institutional decision-making, and the extent to which institutions analyze the relationships between various aspects of students' institutional experiences and their performance. (Ch. 11)

Influence on Academic Decisions

- Institutions are more likely to use assessment information in academic decisions (academic planning at the department, program, curriculum and course levels; assessment plans and processes; resource allocation) if they conduct assessment for internal improvement purposes, provide professional development on assessment for student affairs personnel, and conduct assessment studies. (Ch. 11)

Influence on Faculty Decisions

- Institutions are more likely to use assessment information in faculty evaluation and reward decisions if they incorporate assessment information into academic planning and review processes, use student-centered assessment methods, and conduct assessment studies. (Ch. 11)

Influence on Faculty Impacts

- Institutions are more likely to achieve positive faculty impacts (satisfaction, discussions of undergraduate education, interest in teaching, changes in teaching methods) from assessment if they conduct assessment studies, incorporate student assessment information into academic planning and review processes, sponsor administrative and governance activities to promote student assessment, and provide professional development on assessment for academic administrators and faculty. (Ch. 11)

Influence on Student Impacts

- Institutions are more likely to achieve positive student impacts (retention or graduation rates, grade performance, achievement on external examinations, satisfaction) from assessment if they incorporate assessment information into academic planning and review processes, conduct assessment studies, and provide professional development on assessment for student affairs personnel. (Ch. 11)

Influence on External Impacts

- Institutions are more likely to achieve positive external impacts (relationships with private and public funding sources, regional accreditation evaluations, prospective students, community) from assessment if they incorporate assessment information into academic planning and review processes, conduct assessment studies, provide professional development on assessment for academic administrators and faculty, and distribute assessment reports.

12.4 Conclusions

While the overall picture is one of an evolutionary pattern of student assessment — positive but limited influences from state officials and regional accrediting bodies, widespread institutional engagement in student assessment but generally emphasizing a constricted array of measures or methods, moderate organizational and administrative support to promote student assessment, and little use of student assessment data or monitoring of assessment impacts — there are practical and scholarly implications of this survey.

First, the conceptual framework for examining an institution's engagement with student assessment appears to be useful (see Figure 1.2). Institutions reported student assessment-related activities in all five domains. The framework and the variables it includes provide a comprehensive means for examining an institutional profile of approach to and organizational and administrative support for student assessment. This should be beneficial to scholars examining how institutions promote and use student assessment.

Second, the survey instrument (ISSA) provides a useful inventory or checklist for individual institutions to examine the assessment approach (measures and data collection methods) they are using and the patterns of organizational and administrative support activities in which they are engaged. Specifically, it allows them to highlight areas in which they might add to their assessment approach, introduce new institutional support activities or assessment management policies and practices, and identify areas in which to monitor assessment uses and impacts.

Third, the survey provides a baseline for monitoring student assessment activity nationally. Periodic follow-up surveys would be useful and should provide an opportunity to examine the direction and nature of institutions' future student assessment efforts.

Fourth, the extensive differences by institutional type on their approaches to, support for, and uses and impacts of student assessment suggest the need for more intensive examination of student assessment issues by institutional type. Clearly, institutions have differing educational missions and clientele which influence their approach to student assessment, how they can best support and promote assessment efforts, and how the information can be used most effectively.

Fifth, the limited relationship between the influences of state assessment policy and accreditation region on institutional approaches to, support patterns for, and, particularly, uses and impacts of student assessment data was surprising. Plainly, there is a need for more extensive and focused study of the linkage between state-level policy and institutional actions, and of the impacts of regional accreditors' student assessment requirements on institutions. These external constituents have devoted extensive efforts to addressing student assessment. Greater understanding of how to make their efforts more effective in improving institutional involvement with, support for, and uses of student assessment is needed.

Sixth, the relatively low level of institutional use of student assessment information in institutional decision-making and the very limited attempts by institutions to monitor assessment impacts suggests the need for greater efforts in this domain of organizational and administrative support for assessment. Institutions do not routinely use student assessment data in internal decision-making or monitor its impact on important areas of institutional and student performance. Given the extensive claims made for the value of student assessment and the substantial human and financial resources invested in student assessment activities, institutions need to give greater priority to examining how student assessment data is used, and how it impacts the performance of individual students and the institution itself.

Finally, the relatively low level of variance accounted for in the models which examined the relationship of various dimensions of external influences, assessment approach, and organizational and administrative support for assessment to measures of assessment uses and impacts can be partially accounted for by the low degree of institutional use and monitoring of impacts (i.e., limited variance of the dependent measures). However, it also implies there are other dimensions and dynamics that influence the extent to which institutions use and achieve positive impacts from student assessment information. In particular, the culture and climate for student assessment (a domain identified in the literature review and conceptual framework but not included in this study), the dynamics of academic units, instructional patterns, and the role of faculty in the adoption and use of student assessment need to be examined more closely. These dimensions will be examined more closely in the next phase of our research, intensive comparative case studies of institutional processes related to student assessment.

The results of this research suggest that student assessment is becoming a common practice in the academic management of postsecondary education in the United States. However, it is not yet institutionalized or deeply embedded in institutional support patterns, policies and practices.

Appendices

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Appendix I

Inventory of Institutional Support for Student Assessment

Inventory of Institutional Support for Student Assessment

For The Research Program on
Institutional Support for Student Assessment

NCPI
National
Center for
Postsecondary
Improvement

NCPI - Project 5.2
University of Michigan
Ann Arbor, Michigan 48109-1259

4 04

An Introduction to the ISSA

The *Institutional Support for Student Assessment Inventory* (ISSA) was developed as part of a national research program examining the *Organizational and Administrative Support for Student Assessment* for the National Center for Postsecondary Improvement (NCPI). The ISSA is designed as an institutional inventory of the organizational and administrative practices that have been designed and implemented to support the use of *student assessment* on your campus.

Institutional Support Practices are those organized activities, policies, and procedures that your institution has intentionally designed to enhance the practice of student assessment. *Student Assessment refers to those activities focused on measuring dimensions of student performance other than traditional end of course grading.*

This national survey is designed to identify institutional support practices for undergraduate student assessment. The project also examines the factors influencing the adoption of various support practices and how those practices enhance the impact of student assessment for institutional improvement.

We understand that being selected for this survey will require a commitment of time to complete and we appreciate your involvement. This instrument is also intended as an institutional self-assessment inventory to facilitate examination of your institution's own organizational and administrative practices which support student assessment. We encourage each institution to use the survey in this manner. You will receive a summary report of survey responses to all compare with your own institutional profile.

Completing the ISSA

The main purpose is to obtain a profile of your institution's current approach to undergraduate student assessment and its support practices. The inventory may be completed by one individual or group of individuals who are most familiar with the patterns of undergraduate student assessment on your campus. It should take less than one hour to complete.

- Please keep in mind that the questions refer to *undergraduate education* at your institution.
- Respond to each item in the questionnaire to the best of your knowledge.

The questionnaire is coded to allow follow up only. Individual institutions will not be identified in any analyses or reports.

Return the completed questionnaire in the enclosed return envelope. Any questions concerning the survey can be addressed to the following:

National Center for Postsecondary Improvement Project 5.2
School of Education
University of Michigan
610 E. University, Room 2339
Ann Arbor, MI 48109-1259
Phone: 734-647-2464
Fax: 734-936-2741
Email: ncpi.proj52@umich.edu

Marvin W. Peterson, Project Director

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I. Institutional Approach to Student Assessment

A. Type, Extent and Timing of Student Assessment

We are interested in your institution's routine practices of collecting different types of undergraduate student performance data, the extent to which they are collected, and when they are collected. For each of the following content types of undergraduate student performance data:

1) indicate the extent to which each type is collected
2) for each type of data collected, check whether it is collected at entry, during enrollment, at exit, or a combination of these data collection points.

Type	Extent				Timing		
Currently Enrolled Students	Not Collected	Collected for some students	Collected for many students	Collected for all students	Collected at entry	Collected while enrolled	Collected at exit
	(circle one number for each item)				(check all that apply for each item)		
1. Student academic intentions or expectations	1	2	3	4	___	___	___
2. Basic college-readiness skills (reading, writing, mathematics, etc.)	1	2	3	4	___	___	___
3. Higher-order skills (critical thinking, problem solving)	1	2	3	4	___	___	___
4. General education competencies	1	2	3	4	___	___	___
5. Competence in major field of study (discipline- or program-specific knowledge)	1	2	3	4	___	___	___
6. Vocational or professional skills	1	2	3	4	___	___	___
7. Personal growth and affective development (values, attitudes, social development, etc.)	1	2	3	4	___	___	___
8. Student experiences and involvement with institution	1	2	3	4	___	___	___
9. Student satisfaction with institution	1	2	3	4	___	___	___
10. Student academic progress (retention, graduation rates)	1	2	3	4			
Former Students							
11. Vocational or professional outcomes (career goals, job attainment or performance)	1	2	3	4			
12. Further education (transfer, degree attainment, graduate study)	1	2	3	4			
13. Civic or social roles (political, social or community involvement)	1	2	3	4			
14. Satisfaction and experiences with institution after leaving	1	2	3	4			

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B. Student Assessment Instruments

Does your institution employ institutionally or externally developed instruments or tests for the following types of undergraduate student assessment information? (circle all that apply for each item):

	Source of Instrument			
Content of Instrument	Not used	Institutionally developed	State provided	Commercially available
1. Student plans, goals, or expectations	1	2	3	4
2. Basic college-readiness skills (reading, writing, mathematics, etc.)	1	2	3	4
3. Higher-order skills (critical thinking, problem solving)	1	2	3	4
4. General education competencies	1	2	3	4
5. Competence in major field of study (discipline- or program-specific knowledge)	1	2	3	4
6. Vocational or professional skills (excluding licensure exams)	1	2	3	4
7. Personal growth and affective development (values, attitudes, social development, etc.)	1	2	3	4
8. Student effort, experiences or involvement with institution	1	2	3	4
9. Student satisfaction with institution	1	2	3	4
10. Alumni satisfaction and experiences	1	2	3	4

C. Other Student Assessment Methods

To what extent does your institution use the following methods to collect undergraduate student assessment information? (circle one number for each item):

Other Student Assessment Methods	Not used	Used in some units*	Used in most units	Used in all units
1. Observations of student performance (simulations, demonstrations, lab)	1	2	3	4
2. Student portfolios or comprehensive projects	1	2	3	4
3. Student performance in capstone courses	1	2	3	4
4. Student interviews or focus groups	1	2	3	4
5. Transcript analysis	1	2	3	4
6. External examination of students (licensure exams, external reviewers)	1	2	3	4
7. Special surveys of or interviews with withdrawing students	1	2	3	4
8. Alumni interviews or focus groups	1	2	3	4
9. Employer interviews or focus groups	1	2	3	4

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* "Unit" refers to academic areas such as departments, divisions, schools, or colleges.

D. Student Sub-Populations

Does your institution use different assessment methods for the following sub-populations of undergraduate students? (check one for each item):

		Different	Same as Other
Students			
1.	Adult students	______	______
2.	Part-time students	______	______
3.	Minority students	______	______
4.	Distance education students	______	______

E. Student Assessment Studies

Does your institution conduct studies of the *relationship between* the following experiences and students' performance (check all that apply):

__ 1. Student course-taking patterns
__ 2. Exposure to different instructional or teaching methods
__ 3. Patterns of student-faculty interaction
__ 4. Extra-curricular activities
__ 5. Residence arrangements
__ 6. Student financial aid and/or concurrent employment
__ 7. Admission standards or policies
__ 8. Academic advising patterns
__ 9. Classroom, library and/or computing resources
__ 10. Do not study the relationship between the above experiences and student performance

F. Student Performance Profiles or Reports

Does your institution provide profiles or reports of appropriate student performance information at the following levels of aggregation (check all that apply):

__ 1. Institution wide
__ 2. Schools or colleges
__ 3. Academic programs or departments
__ 4. Special populations or subgroups/students
__ 5. By course or groups of courses
__ 6. Do not provide any reports

II. Institutional Support for Student Assessment

A. Institutional Emphasis

1. Your institutional mission statement explicitly (check all that apply):

__ a. emphasizes excellence in undergraduate education as an institutional priority
__ b. identifies the educational outcomes intended for your students
__ c. refers to student assessment as an important institutional activity
__ d. does not explicitly mention any of the above

2. For how many years has your institution engaged in student assessment? _____

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B. Purpose of Student Assessment

The following are often intended purposes of an institution's undergraduate student assessment process. Please rate the importance of each for your institution. (circle one number for each item):

Purpose	No Importance	Minor Importance	Moderate Importance	Very Important
1. Preparing institutional self-study for accreditation	1	2	3	4
2. Meeting state reporting requirements	1	2	3	4
3. Guiding internal resource allocation decisions	1	2	3	4
4. Guiding undergraduate academic program improvement	1	2	3	4
5. Improving the achievement of undergraduate students	1	2	3	4
6. Improving faculty instructional performance	1	2	3	4
7. Other (briefly describe): ______________	1	2	3	4

C. Administrative and Governance Activities

Institutions have introduced a variety of administrative or governance activities that address or promote student assessment. Does your institution engage in any of the following activities? (check all that apply):

___ 1. Annual presidential or other institution-wide initiatives, forums or seminars on student assessment
___ 2. Rewards or incentives for academic and student affairs administrators who promote use of student assessment in their unit
___ 3. Incentives for academic units to use student assessment information in their evaluation and improvement efforts
___ 4. Student assessment workshops for academic and student affairs administrators
___ 5. Board of trustees committee that addresses student assessment
___ 6. Faculty governance committee that addresses student assessment issues
___ 7. Student representation on student assessment committees

D. Support for Student Assessment

Use the scale below to rate the degree to which various groups within your institution support undergraduate student assessment activities (circle one number for each item):

	Very Unsupportive	Somewhat Unsupportive	Neutral, Unknown	Supportive	Very Supportive
1. Board of trustees	1	2	3	4	5
2. Chief executive officer	1	2	3	4	5
3. Academic affairs administrators	1	2	3	4	5
4. Student affairs administrators	1	2	3	4	5
5. Faculty governance	1	2	3	4	5
6. Students	1	2	3	4	5

E. Planning and Coordinating Student Assessment

1. Which of the following best describes your institution's *plan or policy* for undergraduate student assessment? Your institution (check all that apply):

___ a. has a formally adopted institutional plan or policy requiring specified undergraduate student assessment activities of all academic units or programs
___ b. has a formally adopted plan or policy for undergraduate student assessment in some academic units or program areas (e.g. general education or academic majors)
___ c. has a formally adopted institutional plan or policy requiring all academic units or programs to develop their own undergraduate student assessment plan
___ d. has a formally adopted institutional plan or policy stipulating institution-wide activities to be conducted by a central committee, office, or officer
___ e. has no formal plan or policy but academic units or programs are encouraged to conduct their own undergraduate student assessment activities
___ f. is currently developing a plan or policy for undergraduate student assessment
___ g. does not have an undergraduate student assessment plan or policy (SKIP TO QUESTION E-6)

2. Is there an *institution-wide group* (committee, task force, etc.) that is primarily responsible for *ongoing planning and policy setting* for undergraduate student assessment? (check one):

___ a. yes
___ b. no (SKIP TO QUESTION E-5)

3. If yes, who serves on this group? (check all that apply):

___ a. Chief executive officer
___ b. Academic affairs administrator(s)/staff
___ c. Student affairs administrator(s)/staff
___ d. Institutional research administrator(s)/staff
___ e. Academic review and evaluation administrator(s)/staff
___ f. Student assessment administrator(s)/staff
___ g. Faculty
___ h. Students
___ i. Other ____________________

4. Who has *executive responsibility* for or who *chairs* the institution-wide group responsible for the ongoing planning or policy-setting process for undergraduate student assessment? (check all that apply):

___ a. Academic affairs administrator
___ b. Student affairs administrator
___ c. Institutional research officer
___ d. Academic review and evaluation officer
___ e. Student assessment officer (if separate)
___ f. Faculty member
___ g. Other ____________________

5. Who *approves* any changes in your institution's plan or policies for undergraduate student assessment? (check all that apply):

__ a. Board of trustees
__ b. Chief executive officer
__ c. Chief academic affairs officer
__ d. Chief student affairs officer
__ e. Institutional research officer
__ f. Academic review and evaluation officer
__ g. Student assessment officer
__ j. Student government
__ h. Academic senate or other faculty committee(s)
__ i. Faculty union (IF YOUR FACULTY ARE NOT UNIONIZED, CHECK HERE _____)
__ k. Other ______________________________

6. Who has *operational* responsibility for your institution's day-to-day undergraduate student assessment activities (e.g., instrument development, data collection, analysis, and reporting)? (check all that apply):

__ a. Academic affairs administrator
__ b. Student affairs administrator
__ c. Institutional research officer
__ d. Academic review and evaluation officer
__ e. Student assessment officer
__ f. Faculty member(s)
__ g. Other ______________________________
__ h. No one (SKIP TO QUESTION E8)

7. To whom does the individual with operational responsibility for day-to-day student assessment activities directly report? (check one):

__ a. Chief executive officer
__ b. Chief academic officer
__ c. Chief student affairs officer
__ d. Institutional research officer
__ e. Academic review and evaluation officer
__ f. Other ______________________________

8. Is there an office which provides faculty consultation in using student assessment for instructional improvement or curriculum development? (check one):

__ a. yes __ b. no

9. If yes, what is the name of the office?______________________________

F. Evaluating Your Institution's Student Assessment Plan or Process

1. Has your institution evaluated its undergraduate student assessment process? (check one):

__ a. yes, with a formal evaluation
__ b. yes, with an informal evaluation
__ c. currently developing evaluation plans (SKIP TO SECTION III)
__ d. not currently evaluating or planning to evaluate assessment process (SKIP TO SECTION III)

2. In evaluating your institution's student assessment process, which of the following elements of that process were reviewed? (check all that apply):

___ a. your student assessment plan and policies
___ b. the structure and responsibility for student assessment
___ c. achievement of your institution's intended objectives for student assessment
___ d. reliability and validity of student assessment instruments and methods
___ e. quality of data analysis
___ f. use of student assessment information in institutional decision-making
___ g. the problems encountered while conducting student assessment activities
___ h. comparison of the costs and benefits of student assessment

III. External Influences on Institutional Student Assessment Activities

A. State Role (FOR STATE-FUNDED INSTITUTIONS ONLY; ALL OTHERS SKIP TO QUESTION III. B-1)

1. Was your state's plan/requirement for student assessment primarily developed (check one)):

___ a. by state-level officials
___ b. through joint consultation between state officials and institutional representatives
___ c. no statewide plan or requirement for student assessment exists (SKIP TO QUESTION III. B-1)

2. State requirements for student assessment (check all that apply):

___ a. were an important reason for your institution to initiate undergraduate student assessment
___ b. have increased your institution's involvement in undergraduate student assessment
___ c. have not been a factor in your institution's undergraduate student assessment activities
___ d. have been a negative influence on your institution's undergraduate student assessment activities

3. Your state's reporting requirements include (check all that apply):

___ a. evidence that a student assessment plan is in place
___ b. measurement of state-mandated student performance indicators
___ c. institutionally-devised student performance indicators
___ d. evidence of institutional use of student assessment information

4. How has your state higher education agency reviewed or evaluated your institution's undergraduate student assessment plan or process after it was implemented? (check all that apply):

___ a. reviewed by state officials
___ b. reviewed using external reviewers
___ c. required an institutional self-review
___ d. no post hoc review has occurred (SKIP TO QUESTION B-1)

5. The state review of your institution's undergraduate student assessment plan or process included (check all that apply):

___ a. review of your institution's student assessment process itself
___ b. comparison of your institution's student performance record with your past performance
___ c. comparison of your institution's student performance record with peer institutions
___ d. comparison of your institution's student performance record with other institutions in your state
___ e. other (briefly describe) ______________________________

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B. Regional Accrediting Role in Student Assessment

1. Has your institution gone through a regional self study accreditation review which required undergraduate student assessment? (check one):

__ a. yes __ b. no

2. Regional accreditation agency requirements for undergraduate student assessment (check all that apply):

__ a. were an important reason for your institution to initiate undergraduate student assessment
__ b. have increased your institution's involvement in undergraduate student assessment
__ c. have not been a factor in your institution's undergraduate student assessment activities
__ d. have been a negative influence on your institution's undergraduate student assessment activities

3. Your institution's regional accreditation agency requires (check all that apply):

__ a. evidence that a student assessment plan or process is in place
__ b. intended institutional uses of student assessment information
__ c. results of student assessment
__ d. evidence of actual institutional use of student assessment information
__ e. unfamiliar with regional accreditation requirements for student assessment

C. External Sources of Support for Assessment

1. Has your institution received external grants to improve undergraduate student assessment practices from any of the following? (check all that apply):

__ a. FIPSE
__ b. other federal agencies (please identify): ____________________
__ c. a state incentive program
__ d. private foundations or corporate sources (please identify): ____________________
__ e. no known external grants received

2. Has your institution used any of the following student assessment services offered by the following postsecondary organizations? (check all services that apply for each type of organization):

	Student Assessment Service Used				
Type of Postsecondary Organization	Not used or not available	Consultation services	Assessment conferences	Training workshops	Publications or research reports
a. Professional associations (Institutional, disciplinary, or administrative)	__	__	__	__	__
b. Regional accrediting association	__	__	__	__	__
c. State-level agency	__	__	__	__	__
d. Consortium of institutions	__	__	__	__	__

IV. Academic Management Policies and Practices for Student Assessment

Institutions have a wide array of formally organized policies, activities, and procedures intended to enhance or support the collection and use of undergraduate student assessment information. The following policies and practices have been identified in many institutions.

FOR QUESTIONS A THROUGH D, INDICATE WHETHER THE FOLLOWING POLICIES OR PRACTICES EXIST AT YOUR INSTITUTION.

A. Resource Allocation for Student Assessment (check all that apply):

__ 1. An explicit operating budget allocation is made to support student assessment.
__ 2. An academic budget process that considers student performance indicators in resource allocation to academic units.
__ 3. An academic budget process that compares academic units on student performance indicators and allocates resources competitively.
__ 4. An academic budget process that rewards academic units for improvement based on their own past student performance indicators.

B. Student Assessment Information System (check all that apply):

__ 1. Key student assessment activities have been scheduled into the academic calendar.
__ 2. A computerized student information system which includes student performance indicators.
__ 3. A student information system which tracks individual students from application through graduation.
__ 4. A student assessment database which is integrated with faculty, curricular, and financial databases.

C. Access to Individual Student Assessment Information (check all that apply):

Student assessment information on individual students is available to:

__ 1. Institutional research, assessment or evaluation professionals
__ 2. Senior academic administrators
__ 3. Department chairs or academic program administrators
__ 4. Student affairs professionals
__ 5. Faculty advisors

D. Distribution of Student Assessment Reports and Studies (check all that apply):

Student assessment reports and studies or appropriate summaries are regularly distributed to:

__ 1. Students
__ 2. Faculty
__ 3. Academic administrators
__ 4. Student affairs professionals
__ 5. Employers
__ 6. The general public

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FOR QUESTIONS E THROUGH H, USE THE FOLLOWING SCALE TO INDICATE THE EXTENT TO WHICH EACH OF THE FOLLOWING POLICIES AND PRACTICES EXIST AT YOUR INSTITUTION (Circle one number for each item).

E. Student Policies on Student Assessment

	Not done at all	Done in a few depts.	Done in some depts.	Done in many depts.	Done in most depts.
1. Students are required to participate in student assessment activities	1	2	3	4	5
2. Incentives are provided to encourage students to participate in student assessment activities	1	2	3	4	5
3. Information regarding the purpose and uses of student assessment is provided to students	1	2	3	4	5
4. Students are provided with individual feedback regarding their own student performance results	1	2	3	4	5

F. Professional Development

1. Faculty are required to learn about or receive training on student assessment	1	2	3	4	5
2. Funds for faculty to attend or present at professional conferences on student assessment are available	1	2	3	4	5
3. Workshops, seminars, or consultative services for faculty on the use of student assessment in course design or instruction are offered	1	2	3	4	5
4. Assistance for faculty in the form of paid leaves, stipends, mini grants or course reduction to improve use of student assessment is provided	1	2	3	4	5
5. Workshops and seminars for department chairs, deans, and other academic administrators to improve use of student assessment in their unit is provided	1	2	3	4	5
6. Student affairs staff are required to learn about or receive training related to student assessment	1	2	3	4	5
7. Student assessment workshops for student affairs administrators are provided	1	2	3	4	5

G. Faculty Evaluation and Rewards

1. Faculty evaluation for promotion considers evidence of student performance in their classes (not just student teaching evaluation)	1	2	3	4	5
2. Faculty evaluation for annual salary and merit increases incorporates evidence of student performance	1	2	3	4	5
3. Faculty scholarship on or innovative uses of student assessment is considered in promotion, tenure, or salary reviews	1	2	3	4	5
4. Faculty willingness to use or to participate in student assessment activities is considered in faculty promotion, tenure, or salary reviews	1	2	3	4	5
5. Faculty receive public recognition or awards for innovative or effective use of student assessment	1	2	3	4	5
6. Faculty hiring process considers experience or skill in student assessment	1	2	3	4	5
7. Faculty are encouraged to assess student learning in their classes	1	2	3	4	5

H. Academic Planning and Review	Not done at all	Done in a few depts.	Done in some depts.	Done in many depts.	Done in most depts.
Your institution incorporates student performance data into the following processes:					
1. Academic department or undergraduate program planning or review	1	2	3	4	5
2. General education or core curriculum review	1	2	3	4	5
3. Course-level review and development	1	2	3	4	5
4. Review and planning for student academic support services	1	2	3	4	5

V. Impacts of Student Assessment

A. Decision Making

To what extent has the use of information available from your undergraduate student assessment process influenced the following actions? (circle one number for each item):

Institutional Actions	No action or influence unknown	Action taken, data not influential	Action taken, data somewhat influential	Action taken, data very influential
1. Revising your undergraduate academic mission or goals	1	2	3	4
2. Designing or reorganizing academic programs or majors	1	2	3	4
3. Designing or reorganizing student affairs units	1	2	3	4
4. Allocating resources to academic units	1	2	3	4
5. Modifying student assessment plans, policies, or processes	1	2	3	4
6. Deciding faculty promotion and tenure	1	2	3	4
7. Deciding faculty salary increases or rewards (release time, travel funds, etc.)	1	2	3	4
8. Revising or modifying general education curriculum	1	2	3	4
9. Creating or modifying student out-of-class learning experiences (e.g. internships, service learning)	1	2	3	4
10. Creating or modifying distance learning initiatives	1	2	3	4
11. Modifying instructional or teaching methods	1	2	3	4
12. Modifying student academic support services (e.g. advising, tutoring)	1	2	3	4

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B. Institutional Impacts

Have you monitored the following institutional indicators and been able to document the impact of student assessment information on them? (circle one number for each item):

Internal Impacts	Not monitored, do not know	Monitored, negative impact	Monitored, no known impact	Monitored, positive impact
1. Affected campus discussions of undergraduate education	1	2	3	4
2. Contributed to faculty satisfaction	1	2	3	4
3. Contributed to faculty interest in teaching	1	2	3	4
4. Led to changes in instructional or teaching methods used	1	2	3	4
5. Contributed to student satisfaction	1	2	3	4
6. Affected student retention or graduation rates	1	2	3	4
7. Affected student grade performance	1	2	3	4
8. Affected student achievement on external examinations (e.g. professional licensure, GRE)	1	2	3	4
External Impacts				
9. Affected student applications or student acceptance rates	1	2	3	4
10. Affected allocation or share of state funding	1	2	3	4
11. Affected evaluation from regional accreditation agency	1	2	3	4
12. Affected private fund-raising results	1	2	3	4
13. Affected success on grant applications	1	2	3	4
14. Affected communication with external constituents	1	2	3	4
15. Affected institutional reputation or image	1	2	3	4

VI. Further Studies - Optional

This page will be removed from the questionnaire before it is processed and completion of it is optional. However, we would like to know more about your institution's experience with student assessment and we would like to be able to respond to you personally with a follow up report.

Within the next year several institutions will be invited to participate in a more intensive study of the impacts of their student assessment practices and policies. Would you be interested in participating in a case study?

___ yes
___ possibly
___ no

If you are interested, we would appreciate any additional information regarding your student assessment practices that you believe would be of interest to other institutions. If you believe your approach to student assessment or its impacts are unusual, please describe it briefly (or enclose a report you think captures your experience).

Please provide your name and address if you are interested in receiving a personal summary report of this survey.

Name: ______________________
Title: ______________________
Institution: ______________________
Address: ______________________
____
____
Phone: ______________________
E-Mail: ______________________

Thank you for taking the time to complete this instrument.

Appendix II

Correspondence
Related to Inventory

Appendix II-A
Advance Letter to Chief Academic Officer

January 16, 1998

[inside address]

Dear [name],

This is to advise you that in about a week you will be receiving an important national survey regarding institutional support for student assessment. This survey, which is part of a research program being conducted at the University of Michigan, is sponsored by the National Center for Postsecondary Improvement (NCPI)—one of the U.S. Department of Education funded research and development centers. Your institution's participation is critical and I want to take this initial opportunity to encourage your participation.

As you know, assessment of student learning and performance has been a central issue for higher education institutions for well over a decade. Yet we have no comprehensive picture of the approaches to student assessment that institutions are using or the policies and practices that institutions are incorporating to support student assessment. More critically, we have less evidence on the impacts of student assessment on institutions and on which institutional support policies and practices enhance the use and the impacts of student assessment. The research program for which this survey is being conducted addresses these important questions and is designed to help academic administrators guide student assessment more effectively on their campuses.

The survey instrument entitled "*An Inventory of Institutional Assessment Practices*" (ISSA), is designed both to inform this study and to provide your institution with an opportunity to examine your own student assessment approach and support patterns. The instrument itself will require about an hour to complete – either by yourself or the person in your office most knowledgeable about student assessment at the undergraduate level in your institution. We will provide a summary of the survey results to compare with your own institution's profile.

We look forward to your participation and to assisting participating institutions in their own examination of this important academic management activity.

Sincerely,

Marvin W. Peterson
Professor of Higher Education, University of Michigan
and Research Director, National Center for Postsecondary Improvement

Appendix II-B
Cover Letter to First Mailing of Inventory

January 23, 1998

[inside address]

Dear [name],

About a week ago, I wrote to let you know you would be receiving the enclosed questionnaire, an *Inventory of Institutional Support for Student Assessment* (ISSA), and to encourage your institution's participation. The instrument is a central element in a larger research program examining student assessment as part of the National Center for Postsecondary Improvement. NCPI is one of the U.S. Department of Education funded research and development centers.

As I noted in my prior letter, this survey is the first comprehensive national study examining how institutions approach or conduct student assessment, what policies and practices they use to support student assessment and what uses or impacts student assessment has had. The study is designed not only to examine the various approaches and support patterns, but also to try to understand how these approaches and patterns are shaped by external forces (e.g., state policy, accreditation, etc.), how they influence institutional use of student assessment information and whether they have beneficial institutional impacts. The intent is to examine critically how student assessment impacts institutions, how to improve it, and how academic administrators can use it to improve the academic performance of their institutions.

The instrument is designed both to provide data for our study and to provide you with an inventory of your own institution's approaches to and patterns of support for student assessment. You will receive a summary of the national survey results to compare with your institution's own profile when data analysis is completed this summer.

Individual institutions will not be identified in any phase of the research and data identifying individual institutions will not be released. The identification code on the instrument is for follow up and for assuring dissemination of the survey summary to respondents only.

The survey should be completed by yourself or the person most familiar with student assessment at the undergraduate level on your campus – that may be a dean of undergraduate studies, a director of student assessment, or an institutional research or academic evaluation officer. The instrument should take about an hour to complete and can be returned in the addressed, postage paid envelope.

Please complete and return the questionnaire by February 13, 1998. Should you have any questions or concerns, they can be addressed to the staff on our project by phone at 734-647-2464 or by e-mail at <ncpi.proj52@umich.edu>. We appreciate your response and hope that completing this inventory will be useful for your institution as well.

Sincerely,

Marvin W. Peterson
Professor of Higher Education, University of Michigan
and Research Director, National Center for Postsecondary Improvement

Appendix II-C
Reminder Postcard

Dear Colleague:

Approximately two weeks ago you received a survey focusing on *Institutional Support for Student Assessment* (ISSA). This survey is part of a national research project on student assessment being conducted by the National Center for Postsecondary Improvement (NCPI).

To date, we have not received your completed survey. If you have not already done so, we encourage you to fill out and return it. If you did not receive a copy of this survey or if it has gone astray, please contact our project office by phone (734-647-2464) or e-mail <ncpi.proj52@umich.edu> and we will send you a new copy.

Sincerely,

Marvin W. Peterson, Research Director
National Center for Postsecondary Improvement

Appendix II-D
Cover Letter to Second Mailing of Inventory

March 18, 1998

[inside address]

Dear [name],

A few weeks ago, as part of a national research project on student assessment being conducted by the National Center for Postsecondary Improvement, I sent you a survey titled an *Inventory of Institutional Support for Student Assessment*. To date, we have not received a completed survey from your institution. If you have recently mailed your response, we thank you for participating in this project and look forward to receiving your response. In the event you have not yet completed the survey or have not received it, I am enclosing another copy for your consideration.

As I noted in my earlier correspondence, this survey is the first comprehensive national study examining how institutions approach student assessment, what policies and practices they use to support student assessment and what uses or impacts student assessment has had. The study also tries to understand how external forces (e.g., state policy, accreditation requirements) shape institution's approaches to and patterns of support for student assessment, how they influence institutional use of student assessment information and whether they have beneficial institutional impacts. The intent of this study is to critically examine how student assessment impacts institutions and how academic administrators can use it to improve the academic performance of their institutions.

The survey is designed both to provide data for our study and to provide you with an inventory of your own institution's approaches to and patterns of support for student assessment. You will receive a summary of the national survey results to compare with your institution's own profile when data analysis is completed this summer. Individual institutions will not be identified in any phase of the research and data identifying individual institutions will not be released. The identification code on the instrument is for follow up and for assuring dissemination of the survey summary to respondents only.

The survey should be completed by yourself or the person most familiar with student assessment at the undergraduate level on your campus – that may be a dean of undergraduate studies, a director of student assessment, or an institutional research officer. The instrument should take about an hour to complete and can be returned in the addressed, postage paid envelope.

Please complete and return the survey by April 10, 1998. Should you have any questions or concerns, they can be addressed to the staff on our project by phone at 734-647-2464 or by e-mail at <ncpi.proj52@umich.edu>. We appreciate your response and hope that completing this inventory will be useful for your institution as well.

Sincerely,

Marvin W. Peterson
Professor of Higher Education, University of Michigan
and Research Director, National Center for Postsecondary Improvement

Appendix II-E
Thank You Letter

22 June 1998

[inside address]

Dear [name]:

Thank you for taking the time to complete the Institutional Support for Student Assessment Inventory, sponsored by the National Center for Postsecondary Improvement. Our response rate was very high and we are looking forward to providing institutions with data on student assessment practices and institutional support structures. We will be spending the summer on data analysis and will send information to our participating institutions in the fall.

I especially want to thank you for your interest in participating in our case study phase. This phase of our research is very important in creating meaningful models for institutions. As more than 200 institutions have expressed interest in participating, we are beginning to create criteria on which to base our selection of institutions. We may contact you for further information as we progress with the selection process.

Thanks again for your participation thus far and for your willingness to continue working with us. Best of luck in your assessment endeavors.

Sincerely,

Marvin W. Peterson

Appendix III

Institutional Response Rates by State

State	Institutions	Received	Percentage
Alaska	6	4	67%
Alabama	60	25	42%
Arkansas	41	25	61%
Arizona	28	15	54%
California	191	77	40%
Colorado	34	16	47%
Connecticut	33	19	58%
Washington DC	9	4	44%
Delaware	7	2	29%
Florida	64	40	63%
Georgia	69	42	61%
Hawaii	15	5	33%
Iowa	51	33	65%
Idaho	10	7	70%
Illinois	111	73	66%
Indiana	58	38	66%
Kansas	45	24	53%
Kentucky	42	22	52%
Louisiana	64	30	47%
Massachusetts	83	41	49%
Maryland	45	20	44%
Maine	21	10	48%
Michigan	64	54	84%
Minnesota	60	34	57%
Missouri	55	32	58%
Mississippi	32	20	63%
Montana	24	8	33%
North Carolina	110	60	55%
North Dakota	18	11	61%
Nebraska	24	11	46%
New Hampshire	19	6	32%
New Jersey	47	27	57%
New Mexico	22	8	36%
Nevada	7	5	71%
New York	161	79	49%
Ohio	98	65	66%
Oklahoma	38	25	66%
Oregon	32	13	41%
Pennsylvania	134	59	44%
Rhode Island	8	3	38%
South Carolina	51	29	57%
South Dakota	18	10	56%
Tennessee	54	36	67%
Texas	135	73	54%
Utah	11	8	73%
Virginia	65	46	71%
Vermont	22	8	36%
Washington	50	36	72%
Wisconsin	51	34	67%
West Virginia	23	14	61%
Wyoming	8	6	75%
Total	**2528**	**1392**	

Appendix IV

Results of Factor Analyses

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Appendix IV-A. Factor Analysis of Institutional Approach to Student Assessment

Questionnaire Section I-A. Extent by Content		Component[1]			
		1	2	3	4
IA11	Vocational or professional outcomes	**.887**	.186	-.220	.085
IA12	Further education	**.874**	.131	-.301	.027
IA14	Satisfaction and Experiences after leaving	**.804**	.239	-.254	-.033
IA5	Competence in Major	.209	**.772**	-.223	-.034
IA4	General Education competencies	.129	**.719**	-.311	.156
IA3	Higher order skills	.153	**.694**	-.379	.035
IA6	Vocational or professional skill	.192	**.693**	.015	.172
IA8	Student experiences and involvement	.235	.206	**-.807**	.042
IA9	Student satisfaction	.377	.189	**-.703**	.190
IA7	Personal Growth and affective development	.131	.319	**-.684**	-.095
IA13	Civic or social roles[2]	.436	.187	-.529	-.375
IA10	Student academic progress[2]	.161	.116	-.366	.063
IA2	Basic college readiness skill[2]	.094	.267	.033	.712
IA1	Student academic intentions or expectations[2]	.089	.037	-.357	.664

Note: 1. Bold print indicates factor placement of item.
2. Item not included in any factor. Maintained as separate item variable.

Appendix IV-B. Factor Analysis of Institutional Approach to Student Assessment

Questionnaire Section I-C. Other Student Assessment Methods		Component[1]	
		1	2
IC9	Employer interviews or focus groups	**.770**	-.058
IC8	Alumni interviews or focus groups	**.737**	-.208
IC6	External examination of students[2]	.488	-.109
IC7	Survey or interview withdrawing students[2]	.482	-.294
IC5	Transcript analysis[2]	.430	-.376
IC3	Student performance in capstone courses	.136	**-.786**
IC2	Student portfolios or comprehensive projects	.136	**-.769**
IC1	Observations of student performance	.422	**-.555**
IC4	Student interviews or focus groups	.476	**-.510**

Note: 1. Bold print indicates factor placement of item.
2. Item not included in any factor. Maintained as separate item variable.

Appendix IV-C. Factor Analysis of Institutional Approach to Student Assessment

Questionnaire Section I-E. Student Assessment Studies		Component[1]	
		1	2
IE2	Exposure to different teaching methods	**.694**	-.106
IE3	Patterns of student-faculty interaction	**.686**	-.360
IE9	Classroom, library and/or computing resources	**.675**	-.305
IE8	Academic advising patterns	**.654**	-.451
IE1	Course taking patterns	**.599**	-.377
IE5	Residence arrangements	.148	**-.801**
IE4	Extra-curricular activities	.400	**-.732**
IE6	Financial aid and/or employment	.429	**-.699**
IE7	Admission standards or policies	.401	**-.625**

Note: 1. Bold print indicates factor placement of item.

Appendix IV-D. Factor Analysis of Institutional Support for Student Assessment

Questionnaire Section II-B. Purpose of Student Assessment	Component[1]	
	1	2
IIB4 Guiding undergraduate academic program improvement	**.850**	-.013
IIB5 Improving achievement of undergraduates	**.837**	.056
IIB6 Improving faculty instructional performance	**.745**	.196
IIB3 Guiding internal resource allocation decisions	**.712**	.401
IIB7 Other purpose[2]	.596	-.214
IIB1 Meeting state reporting requirements[2]	.029	.854
IIB2 Preparing institutional self-study[2]	.089	.775

Note: 1. Bold print indicates factor placement of item.
2. Item not included in any factor. Maintained as separate item variable.

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Appendix IV-E. Factor Analysis of Assessment Management Practices and Policies

Questionnaire Sections IV-E. Student Policies on Assessment; IV-F. Professional Development; IV-G. Faculty Evaluation and Rewards; & IV-H. Academic Planning and Review	Component[1]				
	1	2	3	4	5
IVF2 Funds for faculty to attend assessment conferences	**.761**	.101	.253	-.300	.201
IVF3 Faculty workshops on student assessment	**.756**	.046	.230	-.310	.406
IVF4 Faculty assistance using student assessment	**.665**	.201	.071	-.236	.155
IVF5 Department chair student assessment workshops	**.658**	.128	.213	-.373	.520
IVG6 Hiring process considers assessment skills[2]	.563	.435	.197	-.302	.114
IVF1 Faculty required student assessment training[2]	.489	.111	.458	-.361	.406
IVG1 Promotion evaluation includes student performance	.044	**.771**	.165	-.213	.141
IVG2 Salary evaluation includes student performance	.037	**.758**	.128	-.208	.184
IVG4 Assessment participation considered in evaluation	.348	**.725**	.254	-.260	-.055
IVG3 Assessment scholarship considered in evaluation	.330	**.713**	.162	-.234	-.035
IVG5 Faculty assessment uses publicly recognized	.496	**.504**	.163	-.259	.134
IVE3 Students informed about assessment purposes	.198	.094	**.791**	-.382	.130
IVE1 Students required to participate	.135	.057	**.749**	-.300	.094
IVE4 Students provided individual feedback	.124	.105	**.747**	-.280	.136
IVE2 Encourage student participation with incentives[2]	.104	.221	.404	-.140	.091
IVH3 Course review incorporates student data	.306	.202	.318	**-.842**	.193
IVH1 Program planning incorporates student data	.241	.203	.301	**-.836**	.177
IVH2 Curriculum review incorporates student data	.296	.169	.355	**-.831**	.182
IVH4 Student academic support services planning	.242	.226	.303	**-.758**	.371
IVG7 Faculty encouraged to assess student learning[2]	.459	.225	.401	-.479	.043
IVF6 Assessment training required for student affairs	.273	.151	.258	-.339	**.879**
IVF7 Assessment workshops for student affairs administrators	.409	.133	.200	-.334	**.869**

Note: 1. Bold print indicates factor placement of item.
2. Item not included in any factor. Maintained as separate item variable.

Appendix IV-F. Factor Analysis of Impacts of Student Assessment

Questionnaire Section V-A. Decision Making		Component[1]	
		1	2
VA11	Modify instruction or teaching methods	**.707**	.264
VA2	Design or reorganize academic programs	**.686**	.260
VA8	Revise general education curriculum	**.660**	.167
VA9	Create out-of-class learning experiences	**.655**	.213
VA1	Revise undergraduate academic mission	**.638**	.266
VA12	Modify student academic support services	**.635**	.245
VA5	Modify student assessment plans or processes	**.604**	.119
VA3	Design or reorganize student affairs	**.582**	.285
VA4	Allocate resources to academic units	**.569**	.409
VA10	Create distance learning initiatives	**.542**	.248
VA7	Decide faculty salary increases	.334	**.903**
VA6	Decide faculty promotion and tenure	.353	**.900**

Note: 1. Bold print indicates factor placement of item.

Appendix IV-G. Factor Analysis of Impacts of Student Assessment

Questionnaire Section V-B. Institutional Impacts		Component[1]		
		1	2	3
VB14	Communication with external constituents	**.785**	.429	-.347
VB13	Success on grant applications	**.765**	.238	-.387
VB12	Private fund raising results	**.753**	.242	-.376
VB15	Institutional reputation or image	**.750**	.461	-.423
VB9	Student applications	**.653**	.177	-.524
VB10	Allocation of state funding	**.593**	.111	-.306
VB11	Regional accreditation agency evaluation	**.546**	.399	-.258
VB3	Faculty interest in teaching	.314	**.832**	-.344
VB2	Faculty satisfaction	.309	**.760**	-.430
VB1	Campus discussions of undergraduate education	.332	**.755**	-.205
VB4	Changes in instructional methods used	.365	**.722**	-.468
VB7	Student grade performance	.389	.320	**-.877**
VB6	Student retention or graduation rates	.472	.330	**-.865**
VB5	Student satisfaction	.416	.424	**-.731**
VB8	Student achievement on external examinations	.434	.292	**-.726**

Note: 1. Bold print indicates factor placement of item.

Appendix V

Related Reports and Publications, and Presentations

Appendix V-A
Related Reports and Publications

Peterson, M. W. (1998). Assessing institutional support for student assessment. In T. W. Banta (Ed.), Assessment Update. Vol. 10 (4). San Francisco: Jossey-Bass.

Peterson, M. W., Dill, D. D., Mets, L. A., & Associates (Eds.). (1997). Planning and management for a changing environment: A handbook on redesigning postsecondary institutions San Francisco: Jossey-Bass.

Peterson, M. W., & Einarson, M. K. (in press). An analytic framework of institutional support for student assessment. In J. Smart (Ed.), Higher education: Handbook of theory and research. (Vol. XV). New York: Agathon Press.

Peterson, M. W., Einarson, M. K., Augustine, C. H. (1997). Inventory of institutional support for student assessment. National survey instrument. Stanford, CA: Stanford University, . National Center for Postsecondary Improvement.

Peterson, M. W., Einarson, M. K., Trice, A. G., & Nichols, A. R. (1997). Improving organizational and administrative support for student assessment: A review of the research literature. Stanford, CA: Stanford University, National Center for Postsecondary Improvement.

Peterson, M. W., Einarson, M. K., Trice, A. G., & Nichols, A. R. (1997). An analytic framework of institutional support for student assessment. Stanford, CA: Stanford University, National Center for Postsecondary Improvement.

Peterson, M. W., Mets, L., Dill, D., & Trice, A. (Eds.).(in press). ASHE reader on institutional research and planning. Needham, MA: Simon & Schuster.

Peterson, M. W., & Trice, A. G. (1997) Institutional evaluation in higher education. Module for distance education course for Brazilian administrators. Brasilia, Brazil: UNESCO Project at Federal University.

Peterson, M. W. et al. (1998). Improvement to emergence: An organization-environment research agenda for a postsecondary knowledge industry. Stanford, CA: Stanford University, National Center for Postsecondary Improvement.

Appendix V-B
Related Presentations

Augustine, C., Cole, J., & Peterson, M. W. (1998, November). State policy and institutional activities. Paper presented at the Association for the Study of Higher Education Annual Conference, Miami, FL.

Peterson, M. W. (1995, November). Institutional support for enhancing student assessment. Research proposal for 5.2 section of proposal for National Center for Postsecondary Improvement. Stanford, CA.: Stanford University.

Peterson, M. W. (1995, October). Quality and continuous improvement research on university work environments. Presentation at University of Michigan Quality Expo, Ann Arbor, MI.

Peterson, M. W. (1995, October). Systemic context for transforming teaching and learning. Seminar presentation at International Leadership Program for Senior University Administrators from Australia and Southeast Asia. University of Michigan, Ann Arbor.

Peterson, M. W. (1996, May). Enhancing faculty involvement in institutional research: A collaborative action research strategy. Paper presented at the Association for Institutional Research National Forum, Albuquerque, NM.

Peterson, M. W. (1997, March). Institutional support for enhancing student assessment and performance. Panel presentation on Effects of Institutions, State Policy, and Academic Programs on Learning and Assessment at the American Association of Higher Education National Conference, Washington, D.C.

Peterson, M. W. (1997, May). Organizational and administrative environment for student assessment. Panel presentation on Environments for Enhancing Student Assessment at the American Association of Higher Education National Conference on Assessment, Miami, FL.

Peterson, M. W., & Augustine, C. (1998, May). Institutional support for student assessment: Results of a national survey. Paper presented at the Association for Institutional Research Annual Forum, Minneapolis, MN.

Peterson, M. W., & Augustine, C. (1998, November). Results of a national survey of institutional support for student assessment. Paper presented at the Association for the Study of Higher Education Annual Conference, Miami, FL.

Peterson, M. W., Augustine, C., & Einarson, M. K. (1999, May). Organizational practices enhancing the influence of student assessment information in academic decisions. Paper presented at the Association for Institutional Research Annual Conference, Seattle, WA.

Peterson, M. W. and Colleagues (1996-97). Design of distance education course with eight modules on "Evaluation In Higher Education. Presentation at the UNESCO project for Brazilian Administrators, Federal University of Brasilia, Brasilia, Brazil.

Peterson, M. W., & Einarson, M. K. (1997, May). Institutional support for student assessment: Development of a conceptual framework. Paper presented at the Association for Institutional Research National Forum, Orlando, FL.

Peterson, M. W., & Einarson, M. K. (1998, April). Analytic framework of institutional support for student assessment. Paper presented at the American Educational Research Association Annual Conference, San Diego, CA

Peterson, M. W., & Einarson, M. K. (1998, August). Planning for student assessment: Reconciling the interests of internal and external constituents. Paper presented at the Society for College and University Planning Annual Conference, Vancouver, B.C., Canada.

Peterson, M. W., & Einarson, M. K. (1998, September). Management of the learning process: Structures and policies to enhance student assessment. Paper presented at the European Association for Institutional Research Annual Conference, San Sebastian, Spain.

Peterson, M. W., Einarson, M. K., & Augustine, C. (1999, April). The influence of institutional approaches to and support for student assessment on the improvement of teaching and student performance. Paper presented at the American Educational Research Association Annual Conference, Montreal, Canada.

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